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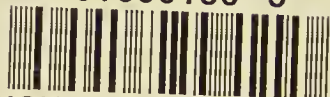
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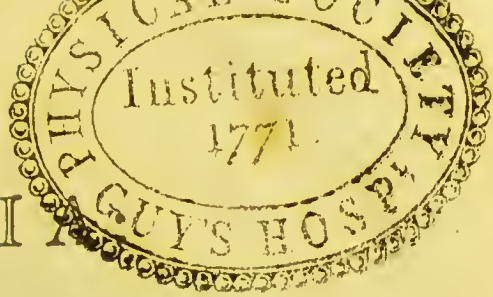




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H Y G I E N E

OR

ESSAYS

MORAL AND MEDICAL,

ON

THE CAUSES

AFFECTING THE PERSONAL STATE

OF

OUR MIDDLE AND AFFLUENT

CLASSES.

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By THOMAS BEDDOES, M.D.

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VOLUME THE THIRD.

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BRISTOL:

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\* The clergy are very apt to be affected with hypochondriacal complaints, perhaps from an idea "that they do not occupy their proper rank in life." *Dr. George Fordyce*. Had the author seen the manner in which young men, destined for the church, live at Oxford, he might, perhaps, have accounted for the injury to digestion from intemperance; their low spirits are often lowered by anxiety and disappointment about preferment; next goes the understanding. But I protest against garbling. Let no one, who combines his own principles with mine, hold me responsible for the result.

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## ERRATA.

*Essay ix.* *p.* 5, *l.* 6, *for* have *read* has. *p.* 30, *l.* 17, *for* he *read* the patient: *p.* 36, *l.* 25, *dele* if: *p.* 42, *l.* 28, *read* as I had lately done: *p.* 60, *l.* 26, *read* interest of money: *p.* 64, *l.* 1, *read* author of the case of epylepsy: *p.* 79, *l.* 7, *read* at the age of seven: *p.* 95, *l.* 14, *for* natural *read* nocturnal: *p.* 96, *l.* 21, *for* any *read* an: *p.* 98, *l.* 3, *read* it would be nothing singular though: *p.* 104, *l.* 9, *for* no *read* not too: *p.* 106, *l.* 4, *for* days *read* evenings: *p.* 108, *l.* 2, *read* awake: *p.* 110, *l.* 15, *for* scarcely *read* no such: *p.* 113, *l.* 14, *for* or *read* and: *p.* 121, *l.* 9, *for* and *read* but: *p.* 136, *l.* 16, *after* do *read* not: *p.* 148, *l.* 10, *for* shews *read* shew: *p.* 166, *l.* 9, *read* when the mind and body are most easily injured: *p.* 175, *l.* 3, *after* in *read* not: *p.* 185, *l.* 8, *dele* all: *p.* 190, *l.* 11, *for* readily *read* suddenly: *p.* 191, *l.* 28, *for* women *read* mistresses.

*Essay x.* *p.* 5, *l.* 7, *after* of *insert* that: *p.* 36, *l.* 23, *after* *for* *insert* justly: *p.* 40, *l.* 15, *for* untutored *read* less tutored: *p.* 56, *l.* 18, *to* unusual *add* ly: *p.* 70, *l.* 27, *for* hypochondriases *read* hypochondriacs: *p.* 82, *l.* 2, *after* on *read* the.

*Essay xi.* *p.* 55. Change the references to the two French notes: *p.* 65, *l.* 3, *before* than *read* other.

In the essay on stomach complaints, there is a blunder respecting cakes made without flour.—The *Echaudées*, which consist of much white of egg with flour do not turn sour in some stomachs, on which bread does.

*ESSAYS*  
ON  
THE MEANS  
OF  
AVOIDING  
HABITUAL SICKLINESS,  
AND  
PREMATURE MORTALITY.

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*ESSAY NINTH.*

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Vol. III.

A

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Quodsi qui mentes hominum verâ sapientiâ ac virtute imbuere student, præter cætera cogitare etiam debent de impedimentis aut adjumentis quæ varia corporis constitutio adferre potest : haud dispar ratio exigit ut illi quoque, quorum officium est corpus humanum ad sanitatem dirigere, quid animi in illud potestas addere aut opponere suis conatibus valeat, diligenter considerent,

If those who labour to imbue men's minds with true wisdom and virtue, are, among other things, obliged to pay attention to the helps or hindrances, arising from this or that condition of the body, there is equally good reason why those, who have to conduct the body towards health, should carefully consider the influence of the mind on their endcavours.

GAUBIUS, *on the Management of the Mind,*



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ESSAY  
ON  
*THE NATURE AND PREVENTION*  
OF SOME OF  
THE DISORDERS,  
COMMONLY CALLED  
*N E R V O U S.*

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GENERAL IDEA.

IN every part of the study of nature, it is common for ancient distinctions to vanish, as a greater number of objects become known, and as every object is more completely investigated. The intervals are gradually filled up, and productions, once held the most dissimilar, are seen to gain a degree of affinity by the successive modification of the particular features of the extremes in the members that fall in to complete the series.

Proofs of this observation may be found in the attempts which have been made to

distribute diseases into classes: and I hope to afford a striking, as well as an useful confirmation of its truth, in the course of the present essay.—In these later ages, an infinite number of experiments have raised the brain, the spinal marrow, and the nerves connected with these, into a degree of importance which they did not possess in the estimation of ancient physiologists. It has been found that where the nerve going to a limb is cut, tied, or injured, the empire of the will over that limb is destroyed, and applications to it produce no sensation. What more natural therefore than to impute loss of motion and sense to an altered state of that portion of the animal structure, of which intentional alterations are followed by the same disability to feel and move?—Again, pinch, prick, or otherwise irritate a particular nerve, and the muscles, into which that nerve passes, shall be thrown into irregular action. When the same irregular actions manifest themselves without the interposition of any experimenter, it is simple and reasonable to infer that the nerve suffers as when irritated on purpose, and that the cause of the diseased or irregular action lies in the nerve. Here therefore we have a foundation for a distinct class of diseases. This class

gains extension from other phænomena. That compression of the brain, which accidents perpetually produce, and which sometimes the want of the scull or bony cover in the human subject has enabled observers to effect at pleasure, have demonstrated that a certain condition of this principal member of the nervous system is an indispensable requisite to perception, loco-motion, and to the other exertions, characteristic of the healthy, waking state. The anatomy of the organs of sense in different states has proved how essential their nerves are to the proper performance of their offices. If the optic nerve be entire, other parts of the eye may be removed, and vision remain. The apparatus provided for conducting the sonorous vibrations of the air to the auditory nerve, may be totally destroyed, and yet sounds may be conveyed through the teeth. But hearing ceases, or is impaired, upon any disorganization of the nerve of hearing. It is in vain that the other parts continue perfect. To these direct proofs, it may be added that a vast quantity of nervous substance is appropriated to each sense, and that it is distributed in a manner, which always raises admiration when exhibited. The nicety of the organ also corresponds to the apparent care

bestowed in the distribution, as is particularly manifest on comparing the interior of the nostrils in animals which differ in acuteness of smell\*.

These observations give us two additional kinds of complaint, properly to be denominated *nervous*. When the hearing is impaired and the auditory nerve altered in its structure, we have *nervous deafness*; and *nervous dimness of sight* or *blindness*, under similar circumstances of vision and of the optic nerve.

From slight numbness up to utter insensibility, and from premature loss of power to total immobility of a part, there are many gradations; but the whole appear to be steps in the same progress. Hence the first come to be referred to the same head as the last. And in fact corresponding causes, capable of acting on the nerves, are often discovered in the slighter affections. Mineral poisons make the limbs tremulous first, and afterwards motionless. Fear and anger are, every day, observed to make persons *quake all over*. They are occasionally observed to bring on perfect palsy. Indeed, common language marks the analogy of these affections. One

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\* Harwood's Comparative Anatomy.



has often been called the *shaking*, the other the *dead palsy*.

So far the deduction appears to proceed satisfactorily. We may follow it yet another step without danger of being puzzled. Supposing a complaint, in which a considerable part of the symptoms shall be, from the first, exactly such as some of those above enumerated, and another part of a different nature and not by any certain experiment or observation, referable to that particular part of the organization, yet we may venture to term the whole disorder nervous. We do this with more confidence, if the symptoms of each description occur together or alternate.—Hysteria may be taken as an example. The same hysterical person shall tremble at one moment, and become blind or deaf, or lose the use of a limb, at another. Then a sneezing or retching of the most excessive violence shall supervene. Not only so; but the paralytic limb shall be restored, in the twinkling of an eye, to its full powers, upon the commencement of sneezing or retching; upon a fit of laughing or crying, or the rising of a ball in the throat, or upon the occurrence of any other of the symptoms, which shew themselves in this infinitely diversified complaint. Now, having referred the uni-

versal trembling and the partial deadness to a certain change in the state of the nerves, I refer to the same constituent parts of the body, the suffocating ball in the throat, the retching, the sneezing, and the other symptoms, though I may not be able to excite them by any operation upon a dissected nerve. But they appear to be intimately connected and interwoven with the others; and indeed seem to make up one disorder, as different strands are twisted into one rope.

But from this point our track becomes more uncertain. By extending the term *nervous* upon the strength of one or two circumstances of resemblance, we are in danger of losing all meaning, and reducing the most heterogeneous affections to one head. It will therefore, if we would keep clear of embarrassment in language, be necessary to have a word entirely new, or some addition to that which we have hitherto retained, in some cases where nervous symptoms occur. For there occur also symptoms of a different character; and as these predominate, they require to be marked. In the beginning of the small-pox for example, and also of some feverish complaints without eruption, there shall be irregular action of the muscles, or *convulsions*. Along with the convulsions too, there

shall be other appearances exactly the same as in diseases strictly called nervous. Yet the small-pox passes not either with nosologists, or with those that follow popular language, for a nervous complaint. The reason is obvious. The nervous symptoms do not generally appear; and in hysteria, if there had been only the retching and the ball in the throat, probably it would never have been considered as a proper nervous disease. The strong pulse, heat, and violent affection of the breathing in bad cases of small-pox, are more common, permanent, and dangerous. They would therefore probably give the disease its denomination, and occasion it to be referred to the *inflammatory* class, did not the pustules offer so striking an appearance, and furnish the matter, by which it may be propagated.

There are certainly no diseases of whatever name, in which the nerves are not affected; and there are probably no nervous diseases, in which the other parts (if they can be considered as destitute of nerves) are not affected. But to call only certain complaints *nervous*, may enable the writer to be more concise, without being less perspicuous, which is the proper use of general terms. I shall therefore, according to the foregoing expla-

nation, continue to employ this word for disorders, of which some of the most remarkable symptoms can be imitated by applications to the nerves, and for others appearing akin to these from unconstrained analogy. They are disorders, in which the limbs move irregularly or without the direction of the will, in which the organs of perception suffer, and the intellectual functions are disturbed; and this, in most instances, without any preceding or concomitant symptoms of a different nature, either general or partial.

It is not easy, and perhaps not possible, to invent a term, which shall point out any one set of disorders to the exclusion of others. But, in common life, there would be much less confusion and somewhat fewer mistakes, if the term *nervous* were not indiscriminately employed, both where there exist or have existed symptoms of a different and peculiar nature, and where there do not. A young person in consumption feels herself low, and is hysterical in various ways; she is therefore persuaded that the cough is *nervous*: that is, she and her friends persuade themselves there is no danger, or that a treatment very different from that likely to answer is requisite. A gouty veteran becomes tremulous throughout his whole frame. Hence he con-



cludes that he labours under opposite or antagonist maladies ; and that if the gout should gain the ascendancy, it would deliver him from his other enemy. But, in the generality of cases, though it be true that the patient is nervous, it would be more exact to consider him as nervous, because he has been gouty. He is only secondarily nervous.

According to a vulgar phrase, when such an one is said, and truly said, to have a *complaint of the bile*, the physician can frequently ascertain, to which of two opposite states the given case belongs. For in some the liver secretes too much bile, in others too little. Perhaps, some such opposition may be hereafter discovered in the variety of nervous complaints. The convulsions, to which children are so prone, and the loss of power in old age, would appear to arise from contrary states ;—the one from excess, the other from defect of nervous energy ? But nothing of this kind can be generally established. Our present acquaintance with the subject does not entitle us to divide the family of nervous ailments into two branches ;—one *positive*, and another *negative*. In the same day an hysterical person shall be troubled with painful acuteness of hearing, and with deafness, and be in the in-

intermediate or natural state. The limbs shall be palsied one hour, and the next, a strong propensity to motion shall impel the invalid to place all the chairs and tables in a circle, and to skip from one to the other, till quite out of breath. Poetical effusions shall follow a fit of stupidity in a person who is neither dull nor brilliant in her ordinary mood.

In all departments of knowledge, the nomenclature must be as the information. Where one is deficient, the other will be vague. In medicine it will, I fear, for a long time, be equally easy to object to a general term, and difficult to replace it by another, free from just objections.

*Peculiar Perplexity respecting NERVOUS AFFECTIONS.*

All diseases, nay, every sort of injury, will, on strict consideration, be found to affect the mind. Some difference in the inward state will correspond to the slightest external difference. I shall have no difficulty in shewing by and by, that disorders, which, like the lumbar or psoas abscess, proceed to a considerable head without being in the least suspected, must affect the indi-

vidual as a rational and sensitive being. But in many instances the bodily change is so much more permanent and considerable than the mental, that this is overlooked. In a pleurisy, the history of the disease and of its treatment, is thought to be fully comprehended in an account of the pain, of the pulse, of the breathing, of the number of bleedings and so forth. In this and other febrile affections, it is deemed sufficient just to note whether delirium occur, or at most, to mark whether it be a delirium of the low or the frantic kind.—Again, the parts concerned in many diseases have been so often examined by dissection, that the physician can read the state of the interior as plainly as if the body were a book, the alteration in organs accessible to sense, and the patient's account of his feelings, serving him for letters.

In nervous complaints, every thing is different. Changes of the organization, it is true, have been sometimes detected in nervous complaints: but then the same symptoms equally appear, when no such changes exist; so that here morbid anatomy is at present of little or no use in pointing out the correspondence between the obvious and hidden workings of the machine. The intellectual faculties bear a considerable part

in these mysterious and often terrific scenes. The members, long since reduced under perfect obedience to the will, throw off all controul. In ruder ages, it was a general persuasion that the furious agitations which sometimes take place, were still voluntary, but proceeding from the will of a malignant spirit, who had possession of the patient, and managed his members as the master of a puppet-shew does those of his diminutive representatives of man. Among the lower ranks of society there may still be found some, who are haunted by the same pernicious belief.

For these irregularities of thought, feeling, and action, which constitute the essential character, if it be possible to assign the essential character, of this class of disorders, we cannot hope to account, without some insight into the laws of the human mind. What terrors there are inherent in this subject, different people will probably disagree in attempting to determine. But one thing is clear. It is a subject of enquiry equally shunned by the faculty, and by those who are not of the faculty. Yet it is obvious that the investigation of these laws bears exactly the same relation to the diseases in question, as the comparative anatomy of



sound and morbid bodies does to many other diseases.

This neglect accounts, in some measure, for our unequal advances in the art of medicine. We continually see improvements made in the treatment of fever, of scrophula, syphilis, consumption, diabetes, and sore legs. Public rewards are given for methods of destroying contagion and exterminating the small-pox. But scarcely does even a rumour of any aid for man, when he is suffering in his higher powers, stir abroad. The attempts made for his relief have nothing in them *rational*. At least they are not guided by any researches into the nature of his sufferings. So that if we are destined to find only in proportion as we seek, we shall have a remedy for cancer a hundred years before we arrive at any tolerable arrangement of the appearances attending mental alienation, or are provided with a set of safe rules for the medicinal employment of the passions.

Considerable discoveries have however been made in pneumatology. If grown people do not take as much pleasure in becoming acquainted with the operations of their own understanding, as children in informing themselves concerning the instincts of animals, is it not in part because the former have not yet had the



advantage of being delineated by a BUFFON? But however it may be to be wished that some luminous and elegant writer should take up the subject of the human mind, we need not remain in a state of inactivity till that happens. Some principles appear to be equally easy of exposition, and capable of application to the design of this tract, namely, to a practical elucidation of the nature of a harrassing set of diseases.

The following sections will serve to shew how far this opinion is well founded. For the sake of perspicuity I shall select one of the most grievous of nervous maladies, as an example of the whole class. Of this I shall first briefly describe the obvious appearances. I shall then enter more at large into its effects upon those operations, with which none but the individual himself can be acquainted. Last of all, I shall endeavour to point out the difference between the healthy and regular manner in which these operations are carried on, and the disturbances to which they become liable. The result, I hope, will turn out very fertile in applications to complaints of familiar occurrence, and which, though separated in our technical books, are yet nearly allied according to the process of nature. For this we are provided with the most ample and

authentic materials, persons affected, in the midst of their distress, having had the fortitude to try to decypher, and the patience to transcribe, their whole interior. This illustration will be found to extend to analogous complaints. For it is remarkable that the same invalid will run through almost the whole range of nervous symptoms. Thus we have seen that the hysterical will become occasionally paralytic. The paralytic will no less become occasionally hysterical.

*EPILEPSY.—Name, Definition, and obvious Appearances.*

No other disease is so strongly marked as a subject of terror by the language of mankind. From the idea that it was a punishment inflicted upon offending mortals by angry divinities or dæmons, it acquired in ancient times a title much like that of Attila the Hun. Long before the consternation excited by the ravages of that barbarous leader, the epilepsy had been considered as the *scourge of God* (*lues deifica: morbus divinus*). It was likewise called the HERCULEAN complaint, an appellation which medical etymologists are puzzled to explain,

but which was perhaps derived from the difficulty experienced in subduing it, and the violence of its attack, somewhat as particular medicines have been named *heroic*. In token of abhorrence, and perhaps \* too as a charm to keep the agitating dæmon away, the by-standers used to spit upon the epileptic. Hence it is mentioned by Plautus and other ancient writers, as the *morbis insputatus*; *morbis qui sputatur*. Among the Romans it produced so much consternation, that the popular assemblies or *comitia* were dissolved, if any person present had a seizure. Hence we find it designated as the *comitial disease*. The afflicted were relinquished to their misery by their friends, as if they were objects of guilt. Connected with this impression, we find the terms *scelestus* and *sonticus* applied to the disorder. Its present accepted name has nothing superstitious at least. For it is derived from the suddenness of its onset. But were any attention paid to its etymology by those who use it, this name would appear on many accounts objectionable. Its onset is often not immediate: and under such a denomi-

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\* Despuimus comitiales morbos, hoc est, contagia regerimus. *Pliny*.

nation it stands apart from affections, to which, as we shall afterwards see, it owes its origin, with which it is apt to alternate, and from which, in fact, it differs but in degree.

It is no wonder, however, that before its source and affinities were known, this circumstance should have been among those which principally fixed attention. Indeed in the list of its hundred names, it would have been very natural to find the *tyger-disease*, from the propensity of that formidable animal to spring without notice upon its prey. And what in reality can be more terrifying, and more calculated to humble the spectator by inducing a sense of the helpless and precarious condition of human nature, than to behold a person, to all appearance stout and healthy, in the midst of his pleasures or amusements, deprived instantaneously of the command of his limbs, of his reason, and the use of the senses; with all his muscles rigid at one moment, and the moment after actuated by the most furious convulsions, while the saliva, worked into froth by his breath, oozes from his mouth during the continuance of his agitations? There are many people for whom the horror of such a sight is too much. They are obliged to turn away from it, and that under pain of



being seized in a similar manner—an occurrence which has sometimes taken place.

Those who can bear to view the phænomena of an epileptic paroxysm attentively, will see the patient either fall upon the ground without any previous effort; or if he happens to be on his legs, he will suddenly rush two or three steps forwards, or turn round in a circle, and then fall. All to whom nosologists allow the term *epileptic* to be applied, become insensible at the moment of their fall. Frequently they utter a shrill cry, of which none but those, who by great efforts have gained an unusual power of self-observation, retain any remembrance upon the resolution of the paroxysm.

No one account will apply to different epileptics; nor indeed are the observable circumstances of different accessions in the same case absolutely identical. The most remarkable are the *spasms* or fixed contractions of the muscles; and the *convulsions*, or the strong contractions alternating with relaxations. From spasm of the muscles under the covered skin of the head, the hair stands an end as in fright. The eye-brows are often drawn down and brought nearer as in vehement anger. The eyes appear prominent and fixed, all from extreme rigidity of the mus-



cular fibres that move these parts, insomuch that the medical spectator has sometimes been led by the expression of the countenance to mistake the effect of a beginning paroxysm for passion. The neck swells so much that there would be danger of suffocation, if the collar were left unbuttoned. The head is sometimes drawn backwards and the body bent like a bow. At other times the head comes forward, and the chin is fixed down to the top of the breast bone. Sometimes the neck has been so twisted that the chin has come almost upon the point of the shoulder. The same stiffness extends to the extremities. The thumbs in particular are brought forwards into the palms of the hands.

Convulsions are more common than spasms. Dr. Cullen, whose definitions of diseases have perhaps more authority than value, after some older writers, makes epilepsy to consist in convulsions and insensibility (*convulsio cum sopore*). The fixed contractions either cease for the most part after the fit has continued a short time, or the fit consists principally in agitations without rigidity. The scalp and the forehead are then apt to work incessantly. The eye-lids, though nearly closed, are in a state of perpetual tremor. The eye

itself will roll with the utmost wildness. The other muscles of the face are no less in motion. The lips are pointed so as to form a beak, and the next instant drawn so forcibly back as to bring the corners of the mouth near the ears. Boerhaave observed this species of convulsion so rapid in a Jewess, as on being attentively observed to occasion giddiness in spectators of great sensibility.

The jaw shall be either locked (and that so forcibly as to break the teeth) or it shall be so convulsed as to be thrown out of joint. It is then that the tongue is in danger. For being protruded in the general orgasm, it gets between the teeth and is severely wounded, and in some cases almost chopped in two. The foam, as it works out of the mouth, being reddened by the blood, adds greatly to the terror of the scene. Some observers have found the smell of this discharge insupportably cadaverous (*Tissot sur l'épilepsie*); and others notice an acrid odour, which renders it impossible to remain in the chamber without opening the windows, though this does not appear to take place in consequence of the fit, and therefore has probably nothing to do with the disease—(*Doussin-Debreuil de l'épilepsie, Paris, an. 5.*)

The nerves having as much influence on

the secretory organs as on the muscles themselves, no wonder that the secretions should, on some occasions, become excessively offensive. I know two persons, in whom the breath turns instantly disagreeable on receiving any chagrin. This depends on a sudden change in the action of the glands of the mucous membrane of the chest.

The head is tossed to and fro with the utmost velocity by the numerous and powerful muscles of the neck. The trunk and limbs are thrown into every species of movement, of which their structure renders them capable. In children the feet have been seen bent with so much force that the great toe has come nearly in contact with the heel.

The internal parts are no less convulsed. Sobbing and hiccuping, which are convulsions of the diaphragm, accompany epileptic fits as also violent retching. The bowels work with equal violence, as is proved by a tremendous rumbling noise. The bladder contracts with almost inconceivable power. Its contents, have been remarked in children, to form a jet of ten feet. Other evacuations take place in consequence of the involuntary action of the muscles, upon which they depend.

It has been asserted that epileptics, during the accession, will emit sounds resembling

the voice of many different animals. It might seem as if this was a circumstance super-added from the imagination of the terrified spectators. Nothing, however, is more true. Witnesses by no means superstitious, and perfectly calm, attest the fact. And if we consider that no opera-dancer can come up to the contorsions of the larger muscles, we shall not wonder that those of the larynx should be affected by the most extraordinary agitations, and these will produce tones, equally extraordinary.

Parts of the skin frequently look black from a sluggishness of the circulation of the blood. Sometimes the discoloration becomes permanent from an effusion of that fluid under the skin; and this, if I do not mistake, by no means merely from the bruises which the patient may receive from his own hands during the epileptic commotion; but from bursting of the vessels, or dilatation of their mouths. I believe there is a species of pulmonary hæmorrhage, purely epileptic. I have at this moment under my care a patient, who has long discharged large quantities of blood from the chest, without apparent injury to the lungs. This hæmorrhage alternates with most violent and long continued retching, not excited by coughing or by any



thing offensive in the stomach; and there are, at other times, fits of insensibility, attended by a locked jaw with convulsions, and going off, as I shall immediately describe those of epilepsy to do. Loss of blood has been frequently noticed from the stomach and bowels, of which the muscular fibres, from the internal noises often heard, seem to be convulsed like the external; and there are phænomena proving distinctly enough that particular cavities, destined only for the occasional reception of blood, are sometimes gorged with it at the time of the fit.\*

After a certain number of seconds or minutes or hours (for nothing can be more indeterminate than the duration of the paroxysm, though from fifteen to twenty minutes has been reckoned an ordinary average period) the agitations begin to subside, and the fixed contractions to relax. The respiration becomes less hurried, and the patient gradually recovers his perception and consciousness, very commonly amid deep sighing. The accession in some instances leaves so little vestige of disorder that the patient cannot imagine that any thing has

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\* Constat insultibus epilepticis priapismus sæpenumero  
se addere comitem.



happened to him. But in general he finds himself excessively heavy and languid for hours and even occasionally for days. Every fibre of his body will tremble for a time afterwards; and a simple fainting-fit occasionally comes on. Sometimes he seems to sleep profoundly, and awakes with a dreadful head-ache. There is not unfrequently a difficulty of swallowing, a squinting or blindness, or stammering, left behind by the seizure. The intellect itself scarce ever holds out against frequent or severe returns of epilepsy. The memory is weakened; the apprehension grows dull. The organs of sense are impaired. The complaint seldom lasts long without destroying all cheerfulness, inducing a disposition to solitude, and at last is succeeded or accompanied by idiotism, apoplexy, or madness.

Infants are more liable to simple convulsions, but still sufficiently subject to proper epilepsy. This however is a complaint, of which the origin belongs rather to youth than infancy. The epilepsy of infants often ceases in the first four or five years. The later the complaint begins, the more difficult of cure is it generally reckoned. When it occurs in early youth, medical men, on finding their prescriptions unavailing, sooth the

patient and his friends with the idea that a natural cure will take place at the period of puberty. To relieve present distress by pointing out a brighter prospect may be excuseable on the ground of humanity; and a concern for the dignity of his own character is apt enough to prompt the physician to exercise his ingenuity in providing his patient with a consolation, when he is obliged to leave him without a cure. But it would be difficult to understand how the doctrine of the spontaneous cessation of epilepsy at the time of puberty, could have found its way into the writings of so many medical authors, did we not know that the most outrageous falsehood comes to be believed by dint of frequent repetition. Women past the prime are flattered in their turn with the idea that this and many other disorders will cease upon the next change of constitution. And it is surely natural that the afflicted should credit and promulgate such welcome predictions! They fail however, and bring their author into discredit. But a new medical prophet arises, and he is listened to with equal credulity.

There are persons of mature years, who experience convulsions with unconsciousness, once in their lives, and never afterwards are

attacked. When some of those exciting causes for example, which will presently be noticed, operate upon a particular occasion with extraordinary vehemence, a fit will be produced without the formation of a diseased habit. In the usual cases, that is, where they do return from time to time, nothing can be more irregular. Sometimes there are several in one day ; sometimes one in a week, or in a month, or in a quarter of a year. Instances have been remarked where they supervene at stated times, corresponding to the phases of the moon, as at every change, at every full or both.

It seems to be agreed among observers that boys are equally liable to seizure with girls. But as to its comparative frequency in the two sexes after the æra of maturity, there prevails a difference of opinion. Some of our own most experienced practitioners of medicine represent the disorder as most common among men.\* The contrary representation is found among physicians of the largest practice, and among the most learned

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\* Quanquam pueri et puellæ juxta corripuntur, fæminæ tamen rarius quam viri in eam incidunt. (*Heberden Commentarii*, 142.)

compilers, on the continent\*. The customs of different countries may perhaps go some way towards accounting for the difference. Females have probably, from the peculiarities of their habit, a stronger predisposition. Where vinous liquors are too freely used, and where disappointments in life and mental depression are very common, men may well be more apt to forfeit the advantage of their firmer constitution. The former circumstance is not foreign to our situation; and in no country perhaps has the pursuit of gold occasioned so much anxiety; to which must be added the contention of mind, excited by other objects, and the adventurous spirit, that leads to many dangerous accidents.—We shall be reduced to conjectures on this and many other still more interesting questions, till medical practitioners shall either voluntarily resolve, or or be obliged by law, to preserve, in some public record, what experience teaches them

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\* Le temperament des femmes est, en général, plus foible, plus mobile que celui des hommes; et je me suis assuré par ma propre pratique que le nombre des femmes epileptiques est plus considerable que celui des hommes. Tissot, p. 38.—La difference se trouve dès l'age de sept ans. p. 38.

Children, and women especially when pregnant, are more disposed to epilepsy than adults and males.—*Sprengel's Pathology* iii. 331.



individually concerning the frequency and production of different complaints. Upon such documents might be constructed tables similar to those of births, marriages, and deaths, from which the state of the public health could be deduced; and it is surely much more desirable to know this, than the mere chance any one has of continuing in existence, whether it be a happy existence or otherwise.

Expectation from the drugs hitherto brought into use, diminishes in proportion to the opportunity of trial. A late imperfect catalogue of anti-epileptic remedies, with the titles of the works, in which their effect is described; occupies an hundred and fifty pages\*, and scarce one of the number is used by any considerable portion of the faculty with the smallest confidence. I have known the nitrate of silver—a medicine lately introduced, or rather revived among us, by a physician of great respectability—administered in twenty cases without succeeding once. Indeed instances of success are so rare in proportion to failures, that it must remain uncertain whether accident or nature does

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\* *Friderici Henning analecta literaria epilepsiam spectantia. Lipsiæ, 1798. 4to. p. 107—156.*



not produce the benefit, though it sometimes happen under the employment of medicines. The accessions, at least, we know will sometimes terminate of themselves. The lengthening and shortening of the intervals without any assignable cause, increases the difficulty of judging. Dr. Heberden mentions a patient, who became more severely and frequently epileptic again after an interval of thirteen years. Stahl speaks of a young man, who had a fit in his earliest infancy, and remained afterwards quite free till his eighteenth year, when he was seized upon being awaked by his master at three o'clock in the morning, and continued to be regularly attacked at the same hour once a month.

The just dread of so terrible a disorder, and the difficulty of its cure, are motives equally obvious and strong for leaving nothing unattempted for its prevention. But it will, I think, further appear evident, that great numbers are placed in the mid-way between firm health and epilepsy, though they may never be exposed to causes capable of exciting the exact symptoms, referred to this head in books of physic. Each approximating state, however, is attended with a multitude of dismal sensations, and indeed occasionally renders almost every instant of life comfort-

less. A long course of imprudence is often necessary to effect this unhappy change in the organization; and it is certain that many persons proceed without suspicion of the point to which they are tending.

*Interior State of certain Epileptics before the Disorder is fully formed.*

When the intervals are very long, and the onset happens without warning, the intermediate state may be either little different from that of persons in health; or, if otherwise, we may have no sufficient means of ascertaining the difference. We must therefore have recourse to cases, in which the complaint itself originally comes on by degrees, and the single fits are announced by definite feelings. From these only can we hope to determine that irregularity in the springs and wheels of the animated machinery, which answers to the violent disturbance in the movements of the external parts. What occurs in other cases may well be supposed similar, though it pass with too great rapidity to admit of observation. Or if this reasonable supposition should be rejected, the explanation will not only hold to a certain extent in epilepsy, but apply to a great

many valetudinarians besides, which circumstance more than doubles the interest of an attempt to analyse this particular complaint.

It has sometimes been observed that particular impressions of terror remain long in early life, with those who are destined to become epileptic, and that these impressions are revived in sleep and in solitary situations. The same is exactly true of those who suffer from nervous head-ache and other affections, allied to epilepsy. One shall believe himself followed close by a lion or a tyger, from having heard some frightful adventure, in which these animals have borne a share. It will be sufficient if the idea of these animals cross the mind, when it is depressed by fear from any other cause. Indeed the feeling and the idea do not usually occur originally together, but become connected in a manner to be hereafter explained. A patient, whose journal of his illness seems to me to give a clearer representation of the ebbs and flows and eddies of the mind in epilepsy, than all the writings of medical men \* put together, relates that, about his seventh year, he was

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\* *Physische & physiologische Geschichte einer sieben-jähriger epilepsie.* 1798.

told that he should see an apparition the succeeding night. He was at the same time conjured, under pain of death, to keep the communication secret. He was quit for an afternoon of horrible expectation; for his parents, perceiving his agitation, prudently forbore to force him to a disclosure, and carried him to sleep in their own apartment. From that time a confused image established itself so firmly in his mind, that in his eleventh year, whenever he fell into a general dry heat, it would occasionally awaken him out of his sleep. Through the whole period of his adolescence, upon becoming hot from the small-pox, measles, (which he had at 16) or from any other trifling indisposition, the same image occurred to him in dreams. Of the composition of this image, he remembered at 33 that a waving flame formed part. Secret imprudences \*, though they were not

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\* “ My good parents had provided me with a common-  
“ place tutor. But alas that I could have had a Theophrastus  
“ for my companion and monitor ! All the influences that  
“ under proper guidance would have mildly fertilized the  
“ warm soil of my constitution, broke out into wild  
“ inundations, which tore down every dam, and only  
“ retired within bounds at that period of later than legal  
“ majority, which we do not attain but by reflection on  
“ the mischief we feel we have done ourselves.”



continued for a long time, added to the injury occasioned by this impression, which was further aggravated by exertions in a public office, made with a view to promotion in the state. In this employment, an unusual difficulty of composition was sometimes experienced. During particular efforts of attention or imagination, there was, within the head, a sense of something moving upwards on the right side. After long sittings, or in company, a weariness of mind frequently came on. At this period, which was eight or nine years before any epileptic attack, he was subject to frequent sneezing, but this by no means took place to any unpleasant degree. Marriage succeeded, and in less than four years the birth of three children. The labours of the cabinet were still persevered in, and within about half a year before the first accession of the disease, more than one subject of continued chagrin occurred.

By degrees, without any considerable pain in the head, a weight and indistinctness began to be sensible. It a good deal impeded thinking, and still more speaking and hearing. At many moments the memory refused the commonest words, and the organs of speech withheld their service altogether. On making efforts to force the expression, he



stammered many times, or one syllable was drawled out after another, and this not above a sixth as fast as usual. Becoming sensible of this incapability beforehand, the expedient of remaining silent and hemming for a couple of minutes, while the cloud was passing over the head, was adopted; and this was found sufficient for rallying the powers.—At the time of such qualms, it was often impossible to collect the sense of the plainest thing uttered by another person, even with the utmost attention. The situation resembled that of a person who hears a language, of which he is but little master, fluently spoken. The words had an obtuse, muffled sound: and yet the ear had acquired so much internal sensibility, that the beat of a drum near at hand, and even the falling down of childrens' little houses, built of pieces of wood, or a rough human voice, were productive of pain. The mornings were more uncomfortable than the evenings; but this inconvenience was obviated in some measure by a more substantial breakfast.

If sleepiness, which sleep does not remove, a frequently returning sense of intoxication, independent of any intoxicating beverage or drug; unsteadiness upon the legs, and actual slight staggering have often preceded

epilepsy for many months, or even for years. In some of these cases of gradual approach, patients have remarked to me that they had perpetually been accustomed to misplace the strokes of the letters in writing, and almost daily to use one word for another, bearing some resemblance in sense or sound or frequently occurring together, but immediately corrected themselves as soon as the sound struck their own ear. For example, *every body feels very languid this WET weather — I mean, this HOT weather :—or, come who will sit down to supper ;—here is only cold meat and pudding ?—I mean, PYE.* These blunders, and many similar, I have known come from a person previous to epilepsy. The propensity to commit them is much greater fasting. A nutritious meal will add equally to the firmness of step and certainty of tongue.

Some experience an incessant restlessness, like that of the wandering Jew. In whatever place they may happen to be, they are seized with an irresistible desire of removing to another, where they hope to find comfort. But no

—— resting finds the sole

Of unblest feet——

This restlessness is usually the symptom of a

serious disorder already formed, as hypochondrasis, or the fore-runner of one still more serious. At the slightest, it shows a thorough derangement of the sensitive organs.

The mind partakes of the same sort of inquietude. Going through a train of close reasoning is felt as an undertaking absolutely impracticable. Indeed, to dwell upon any one thought steadily is a task; and a task too that can only be gone through at long intervals. Some acute observer has remarked of the great king of Prussia that his conceptions were quick, but that on contemplating a subject, he grew confused. Whether it be true in the particular instance or not, the observation holds of many individuals in the way to become epileptic. They are generally those, who somehow or other, have tampered with their sensibility. They seize a question dexterously. But their strength is exhausted in the first assault. If you try to make them grapple with a difficulty, they immediately flinch. To any proposition requiring them to contemplate a number of ideas stedfastly, they will yield a flat unintelligent assent; or to mask their want of bottom, as I think the jockeys term it, they will endeavour to fly off to another topic,

and so on perpetually. To conceive the condition of the head in such cases more distinctly, we may recollect how it fares with the eye, when weakened in such a manner that the instant it is cast upon an inscription, the characters are perfectly plain, but that in a little time they seem to run into one another, then become undistinguishable, and at last vanish altogether. From misconduct of the understanding, all frivolous people must be troubled with some flightiness of attention. We need no other reason to enable us to understand why it becomes requisite, in polite circles, to change the topic of conversation every second minute.

Flashes of light before the eyes, headache of various degrees, and occupying different parts, violent rushings as of blood towards the brain, dizziness, and a great variety of unpleasant sensations are felt by persons, who afterwards become subject to epilepsy. The actual occurrence of these symptoms, and particularly of excessive sensibility, with transient diminution or suspension of the intellectual powers, giddiness, and faintness I should esteem more certain indications than any particular colour of the hair, eyes, or skin. Human beings have not such fundamental differences, but that a single strong



unfavourable impression, or a succession of slighter ones will deprive any temperament of its original advantages.

*Accession of Paroxysms, and State in the intervals.*

The artists of antiquity compounded their portraits by selection of features from many individuals. On the same principle the describers of diseases make up an ideal form; and this, though it may not correspond to any succession of symptoms, past, present, or to come, in the case of an individual patient, is designed to represent them all. It may be questioned, perhaps, whether even in writings for professional men, a well-chosen series of cases would not more than make amends for its prolixity by greater instructiveness and fidelity. On the present occasion at least, a *generic* description would not, I think, be entitled in any respect to the reader's confidence. To serve the purpose of analysis, the account must necessarily be minute; and the more particular the delineation, the greater danger of introducing false strokes without perpetual reference to a prototype in nature. Moreover, language has not yet been adjusted with any degree



of exactness, to our inward feelings. Hence medical reports, where these feelings come in question, stand a double chance of inaccuracy. The invalid, with whom the representation must originate, may express himself ill; and the physician may misconceive him if he takes him simply at his word, or by trying to help him out, may substitute his own ideas. How little then can we depend upon generalisation of such insecure data! I think it therefore better to depend on the labour of the before-mentioned intelligent individual, whom seven years practice in studying and describing himself with all the assistance he could derive from physicians, must have carried to a greater perfection of talent than we can expect to find elsewhere. I have, however, checked his narrative by examination of others similarly affected.

The attacks were not of any unusual kind: Between August 1788 and 6th January 1795, there were sixty-five fits in all. At this period, the absence of concomitant sensations, and the suspension of the fits for above three years persuaded the patient that he was cured. The first fit is thus briefly described. "August 14, 1788, after a disturbed, debilitating\* night, and after working harder

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\* Hoc nomine designatur pollutio nocturna.

“ than usual in my office till one o’clock, I  
“ played two games at billiards, a thing I  
“ had not for some time done. This strained  
“ my eyes a little. In going home, I still  
“ remember to have looked steadily in at the  
“ window of an acquaintance to ask him  
“ how he did, and soon afterwards to have  
“ lost myself in thought and in a dreaming  
“ weakness. Twenty steps further on, I was  
“ found senseless—It was said that I uttered  
“ a frightful cry.”

The second attack occurred on the 22nd of October—“ At one o’clock, I took only  
“ half a meal at home, intending to make  
“ myself amends somewhat later at court,  
“ where foreigners were expected. Instead  
“ of going thither, however, I attended a  
“ conference from two o’clock till eight.  
“ The vivacity of the conversation engaged  
“ me too deeply, especially as I forgot to  
“ take my quassia or any thing else. In this  
“ state I hastened to court in foul weather,  
“ where unfortunately it was ten before the  
“ trumpets sounded for supper. I mistook my  
“ heavy languor for mere sleepiness, and  
“ remember to have entered with the train  
“ into an apartment, where I lost my senses  
“ as suddenly as lately in the street. Accord-  
“ ing to the credible report of those who

"hastened to my assistance, I roared twice  
 "before I sunk. Afterwards convulsive mo-  
 "tions were remarked. Awaking as out of  
 "a profound dream, I returned apt answers  
 "to various questions, though they betrayed  
 "entire ignorance of what had occurred to  
 "myself. Nor did I quite come to myself  
 "again, till I had vomited undigested the  
 "spinach I had eaten at one o'clock. It  
 "was now eleven. - - - The 3rd and 4th  
 "days after I was still crippled in the loins. The  
 "belly and stomach were distended, and I  
 "had distinct pain on being touched under  
 "the ribs."

July 19, 1789, half an hour after a second  
 breakfast, there came on an attack so sud-  
 denly that "I could not speak, and had but  
 "time to seize my servant by the arm, and  
 "seat myself quickly on my bed. So far I  
 "proceeded voluntarily. As soon as I had  
 "sate down I perceived many images, that  
 "had occurred to me during the last days  
 "whisk backwards and forwards in my head.  
 "Amid these I lost myself. My servant  
 "says, that I lay about 2 minutes on the  
 "bed, looked at him steadily as if I had my  
 "senses but could not speak, then suddenly  
 "cried out aloud (but did not bleat, as I  
 "had done in a fit on the 16th of December

“preceding) and repeated the cry several  
 “times in a sinking voice—that at the first  
 “cry I stretched both hands stiff along my  
 “sides, drew my thumbs inwards, fixed my  
 “jaws together, with my lips open, beat about  
 “with my feet, threw out large bubbles of  
 “foam at my mouth, and had my eyes  
 “distorted—that I looked black about the  
 “eyes and lips, that I continued to bend  
 “my head more and more back, and that  
 “my neck and chest were quite stiff;—that I  
 “then raised myself with force, the convul-  
 “sions continuing in the legs, but the body  
 “being less stiff, and that I made efforts to  
 “get off the bed, on which he could with  
 “difficulty bring me to lie down; that he held  
 “*eau de Cologne* to my nostrils, and without  
 “being conscious of what I did I pushed  
 “the bottle away, closed my eyes, which  
 “had all along continued open and distorted,  
 “and that while some of this spirituous  
 “water was rubbed on my temples, the  
 “colour of life returned to my lips and  
 “countenance. But a deep sleep continued  
 “for a quarter of an hour longer. At last  
 “I opened my eyes, could see but dimly,  
 “or speak but as in a dream, with little col-  
 “lectedness. My memory was quite lost. It  
 “no longer, for instance, occurred to me



“ that I had made an engagement to break-  
 “ fast at the Crown inn, and I repeatedly  
 “ asked *where the Crown was?* of which my  
 “ servant talked, and *where I was myself?* ”

These particulars will I suppose satisfy the most scrupulous medical writer that the case was truly epileptic. Respecting the other seizures, therefore, I shall only notice some of the more remarkable observations, the account of the state at the intermediate times being, in my opinion, more interesting.—Dec. 31. “ a debilitating night—much  
 “ sensibility to impressions next day.—In  
 “ the evening, a shivering came on from  
 “ washing in too cold water; and in a  
 “ minute afterwards, a feeling of contrac-  
 “ tion in the head; but not the usual viva-  
 “ city of hurrying ideas. I rubbed some aro-  
 “ matic water on my head, but in vain. I  
 “ placed myself on the sofa close at hand,  
 “ gave my servant the signal agreed upon,  
 “ and immediately lost all consciousness.  
 “ The scream, distortion or turning up of  
 “ the eyes, and convulsions followed.”—  
 March 10.—On thinking too deeply on some moral propositions when the stomach was empty, had a seizure, with but little of the moving images, though there was notice enough to close the book he was



reading, and to ring for the servant.—

August 25.—After superintending a solemnity for five hours, and speaking much, though without apparent exhaustion, could not “get the Turkish music out of his vibrating head” and in five hours after had a seizure.—October 18. After speaking too earnestly, “the revolution I felt in my

“head, and of which I knew the conse-

“quences, instantly waked me. I was not

“able to speak at the time, but had pre-

“sence of mind left to give notice with my

“voice, to swallow cold water, and take

“snuff. Amid these efforts I gave up to

“the inability, and laid myself on my left

“side as if to sleep. Then consciousness

“immediately forsook me.”—December 30.

“Observed the confusion rising in the head;

“sprang back to the cup-board, in which

“my cordial liquor was kept at night. By

“standing still and reaching out for it, I

“perhaps committed the oversight of not

“struggling against the fit with my hands

“and feet. Not finding the liquor, I sprang

“back to the bed, and still made the reflec-

“tion that I might hurt myself in falling

“against the snuff-box, which was in my

“night-gown. So I placed it safely on a

“small ledge. I had but three steps to the

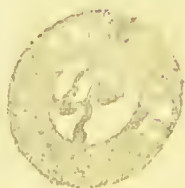
“ bed, and reached it head foremost. At  
 “ that moment followed the loss of con-  
 “ sciousness and the bleating sound.”— —  
 Jan. 14 and Feb. 1792, was waked out of  
 sleep by the confusion of the head; and the  
 last time was not sensible of the flitting  
 images.—June 18, exertion in conversing—  
 at night, unpleasant feelings in the head—  
 the same on awaking—which continued ten  
 hours—a very offensive evacuation—and in  
 spite of putting the feet into warm water,  
 rubbing, elixir of vitriol, a fit took place  
 “ while losing myself in thought and amid  
 “ lively pictures of the fancy, which at such  
 “ hours I have less in my power. — — —  
 “ The cry though protracted was not heard  
 “ in the house: but it seems remarkable that  
 “ I heard it quite plain myself, in conse-  
 “ quence reflected that a relapse was  
 “ at hand, and lost all inward sense.”—  
 Sept. 19. “ Soon after supper I remarked a  
 “ great sensibility to all noises. Between  
 “ eight and nine a relapse occurred rapidly,  
 “ and with the usual hurrying images. — —  
 “ After the convulsions, being raised up and  
 “ assisted, I walked tremblingly, and with-  
 “ out consciousness, about the room. This  
 “ I learned afterwards, for I had no recollec-  
 “ tion of the circumstance, and I then sunk

“ into the sleep, which usually had followed  
“ the fits without intermission.”—Aug. 29,  
1794, a seizure immediately preceded by  
ideas of a kind that had not occupied him  
before. They hurried, as it were with vio-  
lence, across the mind.

Shortly before the invasion of compleat  
epilepsy, and during the intervals of the  
paroxysms, there were other species of ner-  
vous seizures. These occurred very fre-  
quently—not less than seven thousand times  
between August 1788, and the 6th of January  
1795. The following extracts will give an  
idea of their nature, and of their relation to  
the full-formed epileptic paroxysms.—

“ There are moments, wherein my ear finds  
“ no reasonable sense in the words that are  
“ spoken. At the same time, my organs of  
“ speech are incapable of expressing a thing,  
“ which I nevertheless perfectly conceive.  
“ But frequently the ideas also are clouded  
“ in the same manner. I then endeavour to  
“ stop all intellectual action, and to recruit  
“ myself by quietly refraining from think-  
“ ing. Still according to my feeling some  
“ single nerve continues to work on in my  
“ head, and carries me, as in a dream, or in  
“ a state of intoxication, through obscure  
“ visions.—June 4th, 1789, I was waked

“ before I had had my rest out. Indeed, for  
“ a short time previous, I had only slum-  
“ bered. I was in a dream at the moment,  
“ and my fancy continued too busy after  
“ waking. All at once I felt, while lying  
“ in bed, that suspicious crusade of a num-  
“ ber of ideas against one another, which  
“ has heretofore preceded the most violent  
“ attacks. My sight was weak and dizzy,  
“ and a little commotion in the empty  
“ stomach took place at the same time. I  
“ therefore turned from the back on which  
“ I was lying to the left side, closed my eyes,  
“ and in a few minutes this little attack was  
“ over — — July 20, 1790. On an airing I  
“ disputed a moment with warmth. On  
“ returning home, a number of people  
“ pressed to speak to me, and I heard of  
“ intelligence that had been just brought  
“ by the post.—I went to bed not suffi-  
“ ciently composed, and at six o'clock was  
“ debilitated; soon after this I awaked, and  
“ had a stupor which lasted four hours.—  
“ When this was over, I had a sensation  
“ almost of pain over the right temple and  
“ was disagreeably affected, when any little  
“ thing in the room fell — — — In dictat-  
“ ing a letter at four o'clock, I had the





“ dangerous stupor which precedes loss of  
“ consciousness. I dispelled it however by  
“ rubbing, tickling, and vehement scraping  
“ with my feet. My wife observed that at  
“ the moment of stupor I entered the cham-  
“ ber with a very flushed face.—8th June  
“ 1793 I awaked, after a good night, with  
“ a clear head. But as I was putting on my  
“ cloaths in bed, which on account of the  
“ time taken up in wiping away the perspi-  
“ ration was not very quickly done, a phrase,  
“ which the day before had struck my at-  
“ tention, recurred; and during frequent  
“ *involuntary* repetitions of this phrase, I  
“ lost the rein with which I am, as it were,  
“ obliged to hold in my thoughts, and im-  
“ mediately a dangerous stupor came on.  
“ The approach was rapid, and the apparent  
“ congestion up towards the head as con-  
“ tinued as when a compleat epileptic pa-  
“ roxysm follows, though this has gone  
“ off without further effect.—The spasm in  
“ the head seems, at this period of the dis-  
“ order, to be so far diminished, that during  
“ the time, I can not only find the proper  
“ name of many objects (and this is the test  
“ to which my understanding, still con-  
“ tinuing unimpaired, immediately resorts),  
“ but I could also enuntiate them distinctly



“ enough. Therefore the organs of speech  
 “ were not so much affected —At the same  
 “ time I had such morbid sensibility of the  
 “ extremities, that a shivering came on in  
 “ that leg, which was still under the bed-  
 “ cloaths, but without a stocking. By dint  
 “ of rubbing, shaking, kneeling, and with  
 “ the help of the smelling-bottle I got  
 “ through, but in the succeeding minutes  
 “ was very languid and breathless.”—17th  
 March preceding. “ To-day the bowels were  
 “ not sufficiently open; this however was  
 “ fully remedied by a pill—after the opera-  
 “ tion of which I sate down to rest myself  
 “ with a comfortable feeling in my head, as  
 “ I believed, when a stupor came on with a  
 “ hurry of ideas, that lasted a couple of  
 “ minutes. Yet it was rather the protracted  
 “ vibration of the string once put in motion,  
 “ than any variety of images, my under-  
 “ standing remaining clear, and suggesting  
 “ instructions by signs to the persons pre-  
 “ sent how to assist me.”—March 22. “ I  
 “ went to bed feeling well: but at three in  
 “ the morning being sensible, while slum-  
 “ bering, of something amiss in my head, I  
 “ was waked by the continuing stupor. I  
 “ immediately took preventiveessence, walked  
 “ about, and applied cold water to the head.

“ In this manner the stupor went on for half  
“ an hour, but was less severe than the one  
“ preceding. For I had now no nervous  
“ shivering, and at short intervals could  
“ utter words in succession, though between  
“ whiles involuntary ideas came forward, as if  
“ broke loose, yet this time they were tolerably  
“ connected; and twice during the stupor,  
“ spasms in the head began to be alarmingly  
“ strong.”—June 3. “ After a reasoning  
“ dream, a stupor came on, such as I never  
“ afterwards experienced in the night. I  
“ felt, the whole day through, slight stupors,  
“ and not only had in the evening, shortly  
“ before falling asleep, a stupor somewhat  
“ more severe, but also at the very begin-  
“ ning of my slumber a momentary convul-  
“ sion, or twitching of all my limbs.”

December 1791. “ Two dangerous stupors,  
“ from which however I rescued myself by  
“ long and incessant struggling with hands  
“ and feet. It is singular that amid these  
“ confusions of the head and the hurry of  
“ involuntary ideas, the intellect should  
“ remain clear, hovering as it were in a  
“ region superior to that, in which the other  
“ ideas and images are tossed to and fro, as  
“ in a storm. In dangerous stupors I can  
“ still regulate my external actions by my

“ judgment—as for example, I can alter the  
 “ position of my body, reach for snuff or  
 “ anodyne liquor, and at times save myself  
 “ from a fit.”

13th and 17th July 1790. “ In the night  
 “ debilitated—on the 14th tolerable, as I  
 “ was very cautious. But towards the even-  
 “ ing too much speaking and writing. At  
 “ night — — — after getting into bed with  
 “ the idea—*thou wilt have no alarm this*  
 “ *time*—I actually had one of the most dan-  
 “ gerous kinds of stupor. Reasonings, which  
 “ I could neither distinctly comprehend nor  
 “ retain, chased each other, and I was cer-  
 “ tainly very near a compleat relapse. But  
 “ very hard rubbing, applied in time, brought  
 “ me a little to myself. The spasms had  
 “ advanced so far that my pulse was  
 “ hardly sensible, and the extremities quite  
 “ cold — — — — —

“ On the 17th my feet, on awaking, were  
 “ not warm as usual. I could do little to  
 “ restrain the hurry of my ideas, and had  
 “ the stupor (incapability) of speech and  
 “ ear. It did not quite go off from five to  
 “ ten o’clock. Then I had a somewhat  
 “ freer hour, but the head remained heavy  
 “ and ached a little.—From 11 to 12, I  
 “ slumbered, and even then the ideas at

“ first shot rapidly through each other. But  
 “ I awaked more composed, and in the  
 “ evening found myself well.”

“ As soon as the ideas get into commo-  
 “ tion, I try to ascertain the degree of  
 “ danger by my ability to utter words of  
 “ more or less easy pronunciation. If I fall  
 “ on such as I cannot articulate, a sense  
 “ of anxiety appears to come on. This  
 “ renders my situation worse, and stirs the  
 “ ideas still more quickly about. On the  
 “ contrary, if I fall on an object, whose name  
 “ I can speak, the nervous irritations seem to  
 “ be allayed. — — — I have provided my-  
 “ self with a dozen short, easy words, the  
 “ object corresponding to which may in-  
 “ stantly strike the eye, and thus contri-  
 “ bute to the fixing of my mind — — —

“ I have several times since been confirmed  
 “ in the efficacy of this method of fixing  
 “ the ideas. But on the 4th of August 1790,  
 “ after dispelling a stupor in this manner,  
 “ another very alarming supervened in the  
 “ evening, before I fell asleep. On looking  
 “ at my hand, it was not possible for me to  
 “ think of the words HAND and SKIN, much  
 “ less to pronounce them. The mind grew  
 “ more and more clouded, as is the case a  
 “ moment before an entire loss of conscious-



“ness.—I was merely capable of stroking my  
 “head downwards, while two persons rubbed  
 “the spine hard. The critical state lasted  
 “about a minute, when I perceived it was a  
 “little better with me. I constantly kept  
 “turning one hand backwards and forwards  
 “before my eyes to elicit the idea (of the  
 “words) HAND and SKIN. In a minute  
 “more I succeeded in gaining them very  
 “distinct, and immediately afterwards in  
 “pronouncing them. My night was good.\*”

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\* It is curious enough to find that different classes of ideas have a different force of connection with the organs of speech. A paralytic patient could not, with all his efforts, read aloud from his book. But he could fluently repeat the words of the same book, when first uttered by another. Is the association between hearing and speaking the less easy of the two to be destroyed, because first formed and oftenest repeated? If an instructed deaf and dumb person were to recover his hearing by any miracle, and then to fall into the situation of the paralytic patient, he ought to be able to articulate from a book, and not by ear, the impressions of his eye having been earliest connected with the movements of his vocal organs.

In epileptic threatenings, where the struggle between the diseased and the healthy actions is difficult, the pronunciation of easy words by the assistants may contribute more to excite the organs of speech than bringing the object to be named before the eye. It will appear below that the recovery of speech will probably stop, some fits.

Among the most remarkable seizures I reckon that which stands reported under date of Feb. 2, 1790. “ During a meditation, by  
 “ no means deep, several involuntary thoughts  
 “ got loose in my head. I not only had a  
 “ stupor, but immediately apprehended some-  
 “ thing worse. So I went hastily from the  
 “ inner into the outer chamber; not being  
 “ able to speak, I hemmed aloud by way of  
 “ signal to my people, and laid myself on  
 “ the sofa. Notwithstanding a pulling of  
 “ nerves connected with the hurrying ideas,  
 “ as strong as had ever yet preceded a con-  
 “ vulsive fainting, and stronger than any that  
 “ had passed off without it, I had never-  
 “ theless so much obscure consciousness as  
 “ to determine, this time, to resist, and  
 “ to stroke myself from my face down-  
 “ wards. My wife came to my help with  
 “ aromatic water and rubbed my back. While  
 “ this was going on, I lost all consciousness;  
 “ and on coming to myself, enquired *whether*  
 “ *I had uttered a scream and had convulsions,*  
 “ and received the consoling answer that  
 “ *I had not.* I was told besides that I had  
 “ been but a few minutes in all upon the  
 “ sofa, and had stroked myself without inter-  
 “ mission. I could therefore have been only  
 “ for a very short time overpowered by lan-

"guor. The pulse was in good order: and  
 "neither hands nor feet, and nothing but the  
 "very tip of the nose and fingers, cold. The  
 "face heated a very little indeed, and it had  
 "not been particularly pale during the  
 "seizure. I afterwards found myself not  
 "extremely weak: I moved about somewhat  
 "less than half an hour, and felt only a small  
 "weight on my head, which went off after  
 "a tolerably composed night." This degree  
 of affection shews how nature ranges wide  
 of the definitions of nomenclators.\* On the

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\* I shall explain myself fully hereafter. But not to be  
 misunderstood, I must here observe that I do not agree with  
 the Brunonians in proscribing nosology. Yet it would be  
 very desirable to bring the medical nomenclature nearer to  
 the actual uninterrupted series of aberrations from the  
 healthy state. Nosology has been founded in inattention  
 to these aberrations, and when prized above its desert, it  
 fosters this very inattention, than which nothing can more  
 obstruct advances in the cure and prevention of disorders.  
 I have repeatedly endeavoured to explore the space between  
 a just performance of the functions and pulmonary con-  
 sumption. I would fain do something of the same here  
 with regard to another set of complaints. A good deal is  
 to be found to this purpose in medical authors, respecting  
 dropsy. There the deviations are marked and gradual.  
 Who will bring to light the first tendency and gradual  
 progress towards diabetes mellitus, towards calculus, mad-  
 ness, and twenty other complaints?

30th March 1789, a seizure nearly the reverse took place. In that, last described, there was a slight loss of consciousness without convulsions. The following exhibits slight convulsions with scarcely an entire loss of consciousness. "I am subject to single  
" convulsions or startings in sleep, but not  
" more considerable than is usual in plethoric  
" people. But yesterday on placing myself,  
" when I was somewhat heavy, on the sofa,  
" I fell nearly into a slumber, but was alarm-  
" ed out of it, every minute or two, by a  
" convulsion sometimes in one part and  
" sometimes in another. In the evening  
" before supper I slumbered again and had a  
" stronger shock than before, which passed  
" as it were through the brain. But in this  
" there was nothing like what occurs in my  
" stupors. I rather found myself alert at  
" at the moment, and slept quietly through  
" the night, except that I had a single fit of  
" starting."

These extracts will be illustrated, and the account of the epileptic phænomena rendered more compleat by the following catalogue of the sensations described at large in this valuable seven years' journal.

*Stupor. Stumpfheit.* By this term is understood—*defect of hearing and of speech, with*



*heaviness.* The author describes himself as having experienced three gradations. These he calls 1. the slight daily stupor—2. the tedious, and 3. the alarming stupor. His feelings bespeak them to be all alike “epileptic ebullitions;” for the state immediately preceding an actual fit was precisely the same as during the alarming stupor; and he is of opinion that this, without opposition from art or some accidental favourable circumstance, would always have passed into a paroxysm. The first compleat attacks in 1788 and 1789 were not ushered in by such rapid approach of the heaviness as occurred several times afterwards, when the danger was repelled. They amounted to epileptic faintings under the quiescence of the inexperienced patient. And after the approaches of spasm had become slower, the attacks by day, better admitting the use of counter-acting means, did not go beyond dangerous threatenings, and most of the compleat paroxysms grew out of stupors, that came on shortly before or shortly after sleep, or in a dream. The subsequent feelings, when the danger had risen very high, consisted in a slight internal thrilling or tremor which diffused itself through all the members in a couple of minutes. Sometimes a little distension

was felt in the head. Sleep seldom followed, and only 7 or 8 minutes repose was necessary to recruit the frame—the unpleasant consequences of the slight stupor were merely more inclination to heat in the head or to a repetition of the same, when he could not keep still for a short time afterwards. They came on oftener when he lost himself in thought or wrote or read or spoke, long or with warmth. Their number in a day was from 2 to 4, and once 8. The tedious stupor was the slight one continued.

Dr. Spalding, the celebrated divine of Berlin, who was never epileptic, gives an account of an attack, very similar to these stupors with hurry of ideas. It may be worth while to compare the reports of two such intelligent self-observers. That of Dr. Spalding was written on the very day it happened, viz. Jan. 31, 1772. He had to speak to many people in quick succession, and to write many trifling memorandums concerning very dissimilar things, so that the attention was incessantly impelled in quite contrary directions. He had, last of all, to draw up a receipt for interest. He accordingly sate down and wrote the two first words requisite, but in a moment became incapable of finding the rest of the words in his memory, or the

strokes of the letters belonging to them. He strained his attention to the utmost in endeavours leisurely to delineate letter after letter with constant reference to the preceding, in order to be sure it suited. He observed, and said to himself, that they were not the right strokes, without being able in the least to conceive wherein they were deficient. He therefore gave up the attempt, and partly by monosyllables, and partly by signs ordered away the man who was waiting for the receipt, and quietly resigned himself to his state. For a good half hour there was a tumult in part of his ideas. He could only recognize them for such as forced themselves on him without his participation. He endeavoured to dispel them to make room for better, which he was conscious of "in the bottom of his thinking faculty." He threw his attention, as far as the swarm of confused intruding images would permit, on his religious principles, and said to himself distinctly that *if by a kind of death, he was extricated from the tumult in his brain, which he felt as foreign and exterior to himself, he should exist and think on in the happiest quiet and order.*

With all this there was not the least illusion of the senses. He saw and heard every thing about him in its real shape, but could not

get rid of the strange confusion in his head. He tried to speak, for the sake of finding whether he could bring out any thing connected; but however vehemently he strove to force together attention and thoughts, and though he proceeded with the utmost deliberation, he soon perceived that unmeaning syllables only followed, quite different from the words he wished. He was as little master now of the organs of speech, as he had before found himself of those of writing.

“ I therefore” says he, “ contented myself  
“ with the not very satisfactory expectation,  
“ that if this state should continue, I should  
“ never all my life be able to speak or write  
“ again; but that my sentiments and prin-  
“ ciples, continuing the same, would be a  
“ permanent spring of satisfaction and hope,  
“ till my compleat separation from this in-  
“ portunate ferment of the brain. I was  
“ only sorry for my relations and friends,  
“ who in this case must have lost me for  
“ duties and business and all proper inter-  
“ course with them, and looked upon me  
“ as a burden to the earth. But, thank  
“ God! this melancholy prospect did not  
“ last long. After the completion of the  
“ half hour, my head began to grow clearer  
“ and more quiet. The uproar and vivid-



“ness of the strange, troublesome ideas  
 “diminished. I could now carry through  
 “my process of thought. I chose subjects  
 “for reflection from my own fund with less  
 “interruption from them, and somewhat  
 “more regularity. I wished now to ring  
 “for the servant, that he might request  
 “my wife to come up. But I required yet  
 “some time to practise the right pronuncia-  
 “tion of the requisite words. In the first  
 “conversation with my family, I proceeded  
 “for another half hour slowly, and in some  
 “measure anxiously, till I at length found  
 “myself as free and clear as at the begin-  
 “ning of the day, only I had a very trifling  
 “head-ache.—Here I thought of the receipt,  
 “which I had begun and knew to be wrong.  
 “Behold instead of *fifty dollars for half an*  
 “*year’s interest*, as it should have been, I  
 “found, in as clear and straight strokes as  
 “I ever made in my life—*fifty dollars through*  
 “*the sanctification of the bri-* with a hyphen,  
 “as I had come to the end of the line.—I  
 “could not possibly fall upon any thing in  
 “my previous ideas or occupations, which,  
 “by any obscure mechanical influence, could  
 “have given occasion to these unintelligible  
 “words.”

This will throw light upon the *hurry of ideas*,

so repeatedly occurring, which the author describes, as image after image, chasing each other, like the trees, houses, and animals by the road, when one drives fast ; or like the figures in a magic lantern. The understanding, he says, was a passive spectator, retained its consciousness and occasionally felt surprize, and even anxiety, at the situation. “ In saying “ *occasionally* I allude to the total absorption “ in thought, which sometimes intervened for “ a few seconds, and even for a whole minute. “ Do such different mental operations occur at “ the same time, *as it seemed to me*, or were “ they successive with the velocity of lightning?—I dare not absolutely presume to decide this point, from my own experience.

When he speaks of *being lost, bewildered in thought*, he is not to be understood of this hurry or tumult of ideas, coursing each other, but of such attachment to one object, and often to a single phrase as to forget every thing else about him.

*Reasoning dreams* are regular though strangely wrought up scenes, not different from the lively dreams of a person in health, but they proved injurious to this particular patient and received an appropriate name in his journal, because they did not awaken him, as the involuntary quick succession of ideas did, out of his

illusion. When the dreaming invalid makes entire harangues in his sleep, overcomes difficulties with honour, or performs an adventure agreeable to the current turn of his imagination, the operation strains the weak nerves of the head too much. In this particular case, the sensibility of the head and the number and vivacity of these dreams declined much upon obtaining better sleep by artificial means and acquiring more vigour.

In the *waking dreams* the bodily and mental powers sink and sometimes vanish. This seems to precede the common paroxysms when the attack happens to go that length ; otherwise it is termed *weakness* : “ on these occasions, I often asked, “ myself, *art thou only dreaming ?* or is that “ which *thou so faintly seest or hearest, actually* “ *present ?* I was only sensible to a degree of “ uncertainty of what I said myself. Years “ before my epilepsy, I was liable to fall into “ a similar state. I read many passages in “ reports of my own composing, without “ apprehending any clear meaning ; and while “ the disorder was forming, I had weak moments when my voice sunk, during long readings, to an unintelligible stammering. This “ was the prelude to the subsequent stupors, “ and it was the accession of one of these very

“waking dreams that, in 1788, for about a minute, preceded the first attacks of the then unknown malady.”

The *headache* was never considerable in this case, as it so often is, but there were two species of sensibility or soreness of head—the one diffused itself over the crown. It arose from cold in the night, and came after the fit—the second seemed to lie deeper in the brain, and was more on the right side, on which the author usually fell in his paroxysms.

*Throbbing* was common on reclining the head to obtain a respite from troublesome feelings and at lying down in bed. General external heat of the head did not always accompany the throbbings nor *vice versa*.

Loss of speech, as we have seen, belongs to the state of stupor: but a wrong word was also frequently uttered; and this had no connection in sound or sense with the word intended, nor was the blunder immediately perceived.

*The ear.* In 1787, common tones often had a muffled sound, and a moderate jarring or screaming voice gave pain. A thickness of hearing sometimes did and sometimes did not accompany this sensation. A confused noise, from a multitude of men even at a considerable distance, produced a sort of intoxication. These



morbid affections of the ear, the author considers as one of the first steps towards stupor, and it is also a just description of incipient *nervous deafness*.

The external ear was very subject to burnings—sometimes it was cold to the touch; scarce ever of a due temperature. The right ear was most frequently heated without the other, and sometimes the left. “The sensibility of these parts is so extreme that I not only internally feel the heat, that is about to penetrate into the ear,\* while that is yet cold to the touch, but the smallest breath of warm air, nay, even single hairs coming in contact with the ear, will make it burn;” an hour generally passed before the application of cold air or cold water could reduce this partial flushing; and lively conversations at table, or exposure to the wind, bring it on still.

The *power of attention* was so weakened, that the author was obliged to make short pauses of rest, in conversation and business. But these were generally sufficient to enable

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\* This, if I understand rightly, is a phenomenon, common to all chilled parts, exposed to a much higher temperature. When the hand, chilled by snow, is held to the fire, the hotache begins, while the outward skin, especially the tips of the fingers, feel cold to a person in the natural state.

him to go on. During the decline of the complaint in 1793 and 1794, the memory did not proportionally improve but rather appeared weaker than from 1789 to 1793. It was not, however as in the first years of childhood. Intelligence and expressions were not wanting pending any occurrence, but impressions had little duration. The author was obliged to fly on account of the irruption of the French into Germany. In his flight he met with many scenes of a very striking nature, which shortly after appeared to him only as so many faint dreams. He could not recall the names of couriers whom he had very frequently seen, and the ideas of his own transactions vanished very soon. In 1795, his first year of convalescence,\* the traces remained longer, except of what he heard, read, or thought during a dreaming weakness. In the second year of convalescence he, sometimes but more rarely, lost the thread of his discourse at one moment, and found it offer itself spontaneously the next; whereas at a former period, it must have been sought with dangerous efforts of attention or altogether in vain.

On the approach of the disorder and at the

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\* The last fit, it may be remembered, was the 6th of January, of that year.

period of the first fits, the perusal of poetry and poetical attempts, which were resorted to by way of salutary dissipation, had the reverse effect, for they excited a dangerous agitation of the nerves.

*Attempt to explain the principal of these phænomena, and to apply them to the purposes of prevention.*

I flatter myself that the reader begins to have some insight into the nature of epilepsy, and that it now occurs to him under a very different view than heretofore :—if he has merely chanced to see an invalid lying helpless upon his back with rigidity of one part of his muscles, and twitchings of the other, foaming at the mouth, black in the face and with the pupil of the eye drawn up into the head, and if he has turned away in horror and tried to drive the scene out of his head as soon as possible. I wish that the following observations may contribute to increase the interest he may have taken in the subject, and put him upon his guard against the causes of those semi-epileptic qualms, with which more, I am afraid, than three out of ten in every genteel circle are not unfrequently overtaken.

There is no one that has not heard of

found out from his own experience, that association of ideas is a property of the mind. In fact, nothing is so easy as to perceive that the actions and feelings of the animated machine begin to settle into groupes from the moment it is possible to make observations upon it, and, no doubt also, from the first moment of its origin. If an infant be gently touched in the palm of the hand, its fingers will grasp the body, by which it is touched: that is, the impression on the skin is attended with a certain feeling (probably a pleasurable one); and this feeling occasions a contraction in the muscles, by which the hand is closed. The sense of hunger gets connected with the muscular fibres of the lips and of the œsophagus, all of which contract in succession so as to carry the food from the mouth into the stomach. Long preparation, we know, is necessary to establish the series of efforts, that are concerned in so common an action as walking, and to judge by the tedious apprenticeship, and the industry exercised from first to last, talking also must be an art of difficult attainment. Indeed, many of us never acquire this art in any considerable degree of perfection.

Impressions, ideas, pleasure and pain mix



and alternate in an endless diversity of ways, as every one must be sensible in himself and in others, though the order that presides over these phænomena, has not been, by any means, completely investigated. Indeed a compleat investigation would not only comprehend the whole history of human nature in all its states, but disclose the means of maintaining the system in its most desirable known condition, and perhaps of exalting it to a higher.

The union between the several sorts of animal action is confirmed by degrees. The child goes on to move with a firmer step, and articulate in more distinct tones. In like manner, the ideas, derived from the senses, attach themselves to each other more steadfastly. Each individual in his progress from infancy, finds himself in a capacity to call up a greater number of thoughts, in consequence of the occurrence of any one thought, just as he is able to move his limbs or his organs of speech for a longer time together at one certain period, than he was at a period preceding.

In all individuals, (unless such as happen to plant themselves within range of a cannon ball, or to be cut off by some acute disease) but more distinctly in some than in others,

the reverse process takes place. There is commonly observed a second childhood as well as a first; and the observation is very much founded upon the circumstance in question. The old man totters like the infant. He is not able to call up the same number of thoughts he once was, in consequence of the occurrence of any one thought; and at some certain period he will find the groupes of ideas he is in a capacity to call up, and the trains of actions he can perform, sensibly diminish. This takes place universally in the natural course of existence, but in some cases an unusual degree of penetration or self-observation is required to discover it. In other cases, it strikes the most careless. A child to talk his best, must be still, and to walk his best he must be silent. So it is with decrepit old men, and with younger ones inclining to be paralytic. The readiest arithmetician existing cannot, perhaps, multiply so many figures together, when galloping full speed, as when reclining on a sofa. Yet he might probably come, by practice, to exert the muscles necessary to sit a horse at Newmarket and to work figures by head at the same time. Till the period of incipient decline, it is the effect of the natural employment of the powers, that each exerts

itself more strongly, and that a greater number can be exerted at once. I do not now enter into any of the various disquisitions which belong to the knowledge of the improvement and combination of the intellectual and animal faculties. Such details would be little suitable to the purpose of these Essays, because as information and curiosity go at present, they would not be agreeable to one of their readers perhaps in a hundred.

Now whether we advert to the whole progress of epilepsy, or to a single paroxysm, we shall find the preceding observations, applicable to the phænomena. The same may be asserted as to the formation and exciting causes of the complaint.

The invalid suddenly falls or becomes previously uncertain of his movements. Now any one who will procure a set of anatomical plates, and make himself a little master of the figures exhibiting the muscles, may easily satisfy himself as to the concert of actions, which it is requisite to maintain, in order merely to keep the body erect; and as to the nice reciprocation in the contractions and dilatations in the several sets, concerned in every kind of motion.

Among the circumstances contained in the above extracts from the account of the

interior feelings during the approach of the disorder, as also on many occasions in the intervals between the stupors and the paroxysms, and at the time of these two varieties of accession, some will appear merely so many interruptions of successive actions, or the absence of a part of such as used to be synchronous. To this head belong the gradual falling off of the pronunciation during the public reading of a state paper to inarticulate stammering;—the invalid's inability to comprehend those of his own composition, while he was reading them, (for here though the association between the visible impression, made by the writing, and the organs of speech remained, the ideas which at other times the sound or sight or the words, would have called up, now did not occur);—the still more distressing want of power to proceed from the visible impression of the *hand* to the pronunciation of the few letters, which constitute the symbol of this member, and even sometimes to recal its visible or audible idea, when it was held before the eyes, and made its proper impression on the organ.

To endeavour, in the manner already described, to insure the associations at the time when a fit threatened, was a rightly directed effort towards preventing the processes of



the system from running into irregularity. A more effectual plan for this purpose will, no doubt, form part of the treatment, when we practitioners of physic come to direct our measures according to a right conception of the nature of the complaint\*. It appears from accidental occurrences that whatever binds the animal actions to their habitual succession, puts off the paroxysm. Dubreuil relates of a porter at Paris, who was his patient, that having one day a very heavy burden on his back, he felt himself all at once in the crisis of a paroxysm, to the vio-

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\* The historian of his own case, so frequently quoted, proposes a separate institution for the cure of epileptics. He quotes an estimate, where the number of such sufferers is made to amount nearly to ten thousand in Germany alone. He adds that there is good reason to fear "if the enfeebling of mens' bodies and the severe exertions, physical and mental, of bodies so debilitated, should stretch any considerable way into the nineteenth century, lest the disorder should also grow more frequent."—The disorder prevails exceedingly in England. In a country where there are 10,000 compleat epileptics, we must multiply by a high term to find the number of persons similarly affected, and, in consequence, more or less incapacitated for being happy in themselves, or of service to their neighbours.—I know not if such institutions would be as much incentives, as they would afford opportunities, to explore that internal world, in which we medical men are such strangers. If so, there could not be imagined a better reason for their establishment.

lence of which, however, he opposed so much resistance as not to fall, which he did at other times. “ I went” said the porter, “ from  
“ the point of St. Eustachius to the com-  
“ mon sewer of Montmartre, without being  
“ able to communicate my situation to my  
“ wife, who was all the way beside me. I  
“ could neither see or hear; and yet some-  
“ thing which I cannot explain, but of  
“ which I have a sort of remembrance,  
“ seemed to direct me in my march, and  
“ made me feel the importance of the ar-  
“ ticles committed to my charge: My wife,  
“ who could not possibly have any suspicion  
“ of my state, because I still went on, does  
“ not recollect that I struck against any  
“ person on the way, although we met a  
“ great number.” (p. 22.)

Here we see a partial suspension of the animal processes, while a certain part went on uninterruptedly. The muscles, employed in bearing a burden acted perfectly, while those of the voice refused their usual co-operation with the ideas. This occurrence too in a person where the suspension usually extended to both kinds of action, contributes with many other examples of the same kind, towards shewing how affections, that excite much less horror, graduate into epilepsy.

There are very few animal motions that do not stop or run into disorder for a time, and then return to their usual rate, while the rest go on in the way to which they have been trained by long habit. Hence the varieties of imperfect epilepsy become innumerable. I have now under my care a patient aged 52, who for four years has had, and continues to have, numerous paroxysms about the full and change of the moon, in which her hands become violently convulsed, with insensibility, fixed eyes, foaming mouth, locked jaws, which in closing have severely wounded the tongue. Yet sometimes on her accessions she walks into the house, if abroad, or seats herself if within, and is said never to have fallen. Her fits are preceded for a day, by excessive distension of all the veins, and they are followed by the involuntary whirl of images, formerly described, with consciousness. The images, she says, frequently consist of ships and scenes at sea, on which she has never been. But a son caused her infinite anxiety by entering on board the navy against her will.

I lately saw a boy, who after being greatly terrified, lost himself almost every half hour in the day. He continued on the spot where he was seized. He had his eyes turned up,

his features fixed, talked with so great rapidity, that it was not possible to catch above a syllable now and then of what he said; he sometimes whistled. All the time he preserved his equilibrium perfectly.—The case of another was stated to me, the course of whose ideas, in consequence of the same cause, came frequently to be suspended for a couple of minutes without convulsions or stiffness. Exactly the same attacks alternate with perfect epilepsy. Tissot saw a girl very healthy till the age of 7, when she was terribly frightened by a storm on the water, and alone of her whole party was not sick. Some days after she had convulsive movements of the eye-lids, and in four months severe and frequent epileptic fits. In the interval came on seizures, marked by slight movements in the eyes and loss of consciousness, which cut short what she was saying. Sometimes on recovery she finished her phrase, and at others had forgotten what she was going to say (l. c. p. 12.)—Tissot also saw (Sept. 1, 1769) a lad of 15 who, a few days after a fright, was seized with sudden speechlessness without the loss of any of his senses. He had a wild delirium, a countenance expressing fear, haggard eyes, and a large livid tumour between his eye-brows. The fit had come



on the day before, when he emerged weak, pale, and oppressed with terror; and "it is beyond all doubt," says the reporter, "if he is not quickly cured that he will become epileptic" (l. c. p. 175).

Mr. Ritter relates of his nephew, that at 7, on seeing a person in a nervous paroxysm (of what kind he has not specified, though probably epileptic), he fell into the same himself. In two years he recovered from these fits: and the year after became subject to a sort of lethargy, so that whether standing or sitting, he would fall asleep. In this state he would converse and name the things held before his eyes, though they looked shut. On being roused, he knew nothing of what had passed in the lethargic paroxysm; but he soon relapsed and then you might continue the conversation, which was going on with him in that state before. When roused again, he knew of what was said in his previous wakefulness, and so on. "He seemed to have two souls, one for waking, and another for sleep." (*Moritz Erfahrungseelenkunde* II. 2. 69.) The relation between the impressions on the senses, and the motions performed in articulation were not destroyed; but it was otherwise with the muscles, whose contraction keeps the body upright, for Mr. Ritter informs us that

he always sunk, unless supported.—The following is the only way to get at an exacter knowledge of such seizures, that is, to learn their relation to one another, and to the average healthy state, for as to what they are in themselves, there is not at present the smallest hope of attaining so far. We must content ourselves with drawing up tables of the sets and courses of action, which are arrested or altered. We must learn what we can of the previous and subsequent feelings; and to make our information serviceable, we must not only explore the immediate exciting causes but get at the whole history of the patient. And in all this no regard must be had to traditionary names.

In a set of tables, shewing the various ways in which our actions may be disjoined from their dependance upon our ideas or upon one another, we should meet with cases, exhibiting a part of the symptoms described above, without the least tendency to spasm, convulsion or sleepiness (*sopor*), which are made the characteristics of epilepsy.

The case of MOSES MENDELSON, the great Jew metaphysician,\* deserves as much

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\* He is accounted nearly the finest writer of his language: His tract on the immortality of the soul is translated into English.

attention as any which I have met with.—It has been described both by himself and Dr. Bloch, the well-known ichthyologist; the account therefore must be received as both authentic and correct. Mendelsohn was a person so engaged in business as to be regularly confined almost all day in a compting-house. He was actuated by an intense desire of knowledge. He gratified this curiosity; and his extraordinary acquisitions were the sole fruit of his nocturnal studies. He was constitutionally weak; but his temperance enabled him for a long time to hold out under his very severe application.—At last he fell into a nervous illness, the attacks of which always happened on his awaking from a disturbed sleep. At these times, he says, “he was perfectly sensible, could  
 “pursue any train of thought he chose with  
 “perfect order and clearness, but was totally  
 “incapable of voluntary motion. He could  
 “neither stir a limb, nor utter a tone, nor  
 “even open his eyes. Every effort he used  
 “for these purposes was not only fruitless,  
 “but increased the very disagreeable sensations that accompanied the inability. He  
 “felt at the time as if something red hot  
 “flowed from the brain along the spine, &c.

“ as if his back had been scourged with red  
 “ hot rods. He was therefore obliged to  
 “ keep quiet till some impression arrived  
 “ from without, and, at that very moment,  
 “ he became perfectly master of all his  
 “ voluntary motions.” (*Moritz*, l. c. 11. 3.  
 68.)—“ Any thing” observes Dr. Bloch,  
 (*Bemerkungen*, p. 61.) “ which acted upon  
 “ either of the five senses restored him. A  
 “ sound, the bite of an insect, a light\*, took  
 “ away the immobility of the limbs.” These  
 paroxysms were attended with anxiety and  
 palpitation, which disappeared along with the  
 immobility upon the slightest irritation. The  
 whole of the following day was passed how-  
 ever in that state of headache and dejection,  
 which so commonly succeeds a compleat  
 epileptic paroxysm. And when, thirteen  
 years afterwards, an increase of his mercan-

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\* I have had an opportunity of enquiring very minutely  
 into the case of three ladies, who upon the accidental going  
 out of the light that burned in their chamber at night, always  
 awoke terrified and with a sense of suffocation and palpita-  
 tion. This attack would go off on kindling the light again.  
 I could not doubt the fact from their own and their husbands’  
 concurring evidence. The effect of the light in restoring  
 Mendelsohn seems an analogous phenomenon.—All three  
 ladies had diseased sensibility, but no nervous complaint  
 bearing a particular name.



tile occupations, and an engagement to carry on three literary works at the same time, brought back the same sort of attack, several new symptoms, common in epilepsy, made their appearance, as giddiness, throbbing, and flushings. The disposition to these at the latter period was such, that it was scarcely possible for him to read or hear a page, or enter into any literary conversation without provoking them. In proper epilepsy, the fits sometimes come at last to be so easily excitable, that riding over an extensive plain, or looking from a height, or reading a single line will bring them on, as I have myself seen. This too is the case with a large proportion among nervous invalids of all degrees, from epilepsy down to that tendency to mere fluttering or discomposure from a sudden noise, which has obtained no specific name.—There is a composition, well known to modern chemists under the name of *fulminating silver*. It is among the properties of this composition to go off on being touched even with the beard of a feather. If the system of the healthy and the vigorous may be compared to gunpowder with respect to its readiness to start into motion, that of the whole class of invalids at present under consideration, will be represented by the over-

hasty and ineffectual explosiveness of fulminating silver.

As those things which tend to strengthen the associations, formed in the progress of life, appear to have power in preventing epileptic paroxysms, so we find the contrary not less true. These and similar affections are most readily brought on at the age when the associations are least confirmed. In infants, acidity, worms, or pain in the teeth, will excite convulsions with or without senselessness, much more easily than in grown people. The effect of sleep in this respect, is remarkable in persons of all ages. The greater number of epileptic fits \* make their onset while the patient is asleep. There are few who are subject to them in the day, who have them not also in the night. In many cases they are absolutely confined to this period of our existence, and where a gradual decline is observed in epilepsy, and the attacks have been common both to the day and night, they appear, towards the close of the complaint, for the most part if not solely in the night. This appears to have happened to the person, from whose description of his

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\* Cum epilepsia vires acquirit per somnum, illi nimis indulgere impune non licet. —HEBERDEN.

own sufferings I have made such copious extracts. The same law obtains with regard to accessions, that answer perhaps strictly to the nosological idea of convulsion and unconsciousness, but are not commonly considered as epileptic.—Miss R——, aged 26, complained that her predominant state of feeling was uncomfortable. She started at sudden sounds, though slight, and had partial headaches, tremors on any moderate exertion, with frequent flushings, throbbings and palpitations. She always found herself better towards evening. The principal cause of her distress, and that for which she sought medical advice, was her being accustomed to grind her jaws in sleep, and sometimes so violently, as to break her teeth. She scarcely ever awaked refreshed; and when her friends had heard the grinding most by night, she was sure to be more particularly fatigued, heavy, spiritless, and oppressed with headache the succeeding day. The nightly muscular action of the jaws in this case cannot, I apprehend, be distinguished by any so proper epithet as *convulsive*. — — The heart, of all the muscles, seems the most liable to convulsions, for such are in fact its palpitations, as throbbing is the convulsion of arteries. How often are nervous persons disturbed out of

sleep by the violence of the sensations, occasioned by palpitations and throbbings? Yet perhaps for once that they produce this effect, they happen an hundred times without being noticed. Startings in sleep are to all intents and purposes convulsions. They particularly infest the nervous, though occasionally and in less force they may befall others, from some imprudence of diet, or some great mental agitation.

These phænomena seem to depend upon some cause besides the mere disunion of those groupes and trains which form during our waking hours. Or more properly speaking, the disunion is but the effect of that cause. Some change happens to the nerves during sleep. This the healthy may recognize in their lighter feelings and renovated powers. It is equally manifest in debilitated persons with too acute feelings, not merely from their awaking more harrassed than when they went to sleep.—For it might be uncertain whether the fatigue does not arise from the incessant activity of the imagination in dreams (whether they be remembered or forgotten), and from the exhausting orgasm of the heart and blood vessels that accompanies these nocturnal excitations of the mind.—But the influence of sleep is



sometimes perceptible the moment it comes on. In the above quotations from the journal, we find our invalid one evening starting as soon as he began to dose. Mrs. W. a lady of a delicate and exquisitely sensible habit, miscarried in the seventh month of pregnancy, and lost much blood. For many days she was awaked, the instant she dropped asleep, by convulsive motions of her different limbs, as considerable as if she had received an electric shock.—Master W. S. had suffered considerably from convulsions while he was cutting his teeth; and when he grew older, he frequently started out of his sleep, so terrified that it took a considerable time to pacify him. His terrors arose undoubtedly, as in similar cases, from frightful dreams. The family resided not far from a manufactory, in which there were loud noises and large flames, issuing from the midst of a black and smoaky scene; and it was ascertained that whenever the child was taken within view of this scenery by day, he awaked in terror soon after being put to sleep.

The writer, who ventures to lay down any propositions respecting dreams, will be given up by every prudent reader, as one that launches upon an uncertain sea without compass or rudder. Yet upon the examination

of many dreamers, nervous and others, I have found, and I think any one, who will enquire, must find, that the following circumstances are general. The images, that figure in dreams, are of more recent date, the younger the person is to whom they occur. Probable evidence of this might be derived from the manner in which the ideas of the human mind multiply, mix and decay. But I build the opinion upon the direct experience of dreamers of different ages. When the elder SCALIGER dreamed that Brugnolus reproached him for the omission of his name in a poem on the celebrated natives of Verona, and when the younger SCALIGER learned that this Brugnolus, of whom his father had not the least recollection, had really figured as a Veronese critic, it must be supposed (unless we admit of inspiration on an occasion so trifling) that the name was brought back by some association in sleep, though it had vanished from the waking memory. The name of Brugnolus or his portrait might have occurred to Scaliger in his early years along with a particular state of the stomach, a certain position of the muscles or groupe of ideas: and these modifications of the system recurring at the time of his dream, would easily call up the name or the portrait, for

merly connected with them. For whatever we think of in sleep is apt to recur with its original or with more than its original, vivacity,\* whereas the ideas in healthy wakefulness are fainter than the impressions from which they are derived. Dr. PRIESTLY has told us that “many persons “(and he is one of the number) seldom “dream of any thing recent.”† The ready forgetfulness of fresh incidents among old people, and those whose memory is not more retentive than in old people, makes it probable that their mind will commonly reach back in sleep to the events of their earlier years, whether remembered while awake or forgotten, as in the case of Scaliger.

If it be true in children that the individual ideas of the day before recur more frequently in dreams, the same holds also, other circumstances being alike, with regard to nervous adults; and in both it is still more

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\* A boy learns his task imperfectly over night; the next day he can repeat it without fault. Here it is evident that sleep has introduced a stronger tie between the ideas constituting the task. And should the repetition make part of a dream, it will doubtless be more fluent than in the morning, as we all find ourselves much more masters of a language we are studying, when we think in it asleep.

† New York Med. Repository, V. 2, 128.

strictly true of the state of feeling than of the individual ideas. For if any thing has happened to discompose a nervous person, the discomposure will commonly be felt in sleep to a still greater extent; and though the very ideas last connected with the discomposed feelings, should not be reproduced, others that have formerly been so connected will. But generally there will be a mixture of both. For feelings that have accompanied ideas at different times, have prodigious power in bringing these ideas together;\* and this is the chief secret for unriddling the inconsistencies of dreams, and the key to the boldest flights of lyric and dithyrambic poetry.

But Morpheus is not content with keeping the minds of his nervous slaves on the alert by the exhibition of his magic lantern. His images rouse into action the muscles that ought to remain at rest during the night. The sleep of savages and of labourers, well fed and not overstrained, may admit, perhaps, of a pretty uniform description. But from the profound injury which the

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\* I only touch here upon the associating power of the feelings. It is the most neglected, and perhaps at the same time the most pregnant topic in the doctrine of the mind.



sensitive part of the human frame sustains in numberless members of 'civilized society, the modifications of existence come to be almost as numerous in what is usually termed sleep, as they are in the waking hours. Indeed sleep has become, from this cause, almost a word without meaning. In its vulgar acceptation it appears to stand for the want of those actions that are usually determined by impressions upon the eye. The best way of arriving at a steady use of the word would perhaps be to examine well the repose of persons, who do full justice to their animal faculties, and to apply it strictly to this state.

Talking in sleep must be considered as the sign of a diseased condition of the nerves. When it is considerable and frequent, it takes away from sleep all title to be looked upon as "chief nourisher in life's feast," and indicates such a disposition to the worst forms of nervous affection as should not be suffered to go on without correction. We have the well-attested case of a basket-maker in the principality of Waldeck, who being much affected by a sermon, repeated it the next night in his sleep; and ever afterwards preached extempore, from some internal impulse like a fit, and also from the effect of spirits. During the time he sate in a kind of stupor,

with his eyes fixed, but without seeing, perspired and had oppression of his breath though he did not speak loud or long. He seemed much exhausted, sighed deeply and recovered slowly.—(*Moritz*, l. c. iii. l. 44).

The grotesque, yet affecting scenes which sleep-walkers go through, and concerning which story-tellers have commonly so much to relate, exhibit a much more alarming union between muscular action and the imagery of dreams. The number of accurate observations we have on persons afflicted with this species of nervous malady is not very considerable. The partial retardation or interruption of some courses of action, while others run on (and often irregularly) in the channels to which they have been accustomed, when the first are in motion, seems to be common to all; and indeed, if no variation took place, there could, it is evident, be no distinction between sleep-walkers and waking-walkers. SAUVAGES relates of a girl subject to catalepsy, that one morning he found her with all her muscles rigid, and that in 5 or 6 minutes she set to yawn, and began the following scene, which she had often acted before. She spoke with a quickness and vivacity which she never shewed but in the paroxysm, for at other times she was timid

and low. What she now said was in connection with what she had said in the last accession, Sauvages convinced himself she was not asleep by aiming to strike her in the face, and though his hand came quite close to her eye, she neither winked nor drew back, nor made the least pause in what she was saying. A burning taper was held almost close enough to singe her eye-lashes, without effect. A person approached her from behind and cried with all his might in her ear but equally in vain. Sauvages applied hartshorn and brandy to her mouth and eyes; he put strong snuff into her nostrils, pricked her with pins, turned her fingers backwards and forwards, which yielded like those of a puppet, and lastly he touched the ball of her eye with his finger without producing the least appearance of sensation. She rose out of bed, walked hastily through the narrow passage between the bed frame and wall without striking either against the one or the other, or against the chairs. After going clear round, she threw herself on the bed again, lay down, covered herself at first. In a quarter of an hour she came to herself just as if she had awaked out of a deep sleep. *Mem. de l'Ac. Roy. des Sciences*, 1742. 409.)

In the *Encyclopedie* under the article *somnambule* there is an observation, which shews a remarkable suspension of one series of affections, while others, the most intimately connected with them, were going on. The archbishop of Bourdeaux was at college with a student, subject to walking in his sleep. On planting himself from curiosity in the student's chamber, so as to ascertain his motions, he observed the young man sit down to compose sermons, which he read page by page as he committed them to paper, if it can be called reading, when no use was made of the eyes. On being dissatisfied with any passage during the recitation, he crossed it out and wrote the correction with much accuracy over it. The writer of the article saw the beginning of a sermon, in which was the following amendment. It stood at first *ce divin enfant*. On revisal, it struck the student to substitute *adorable* for *divin*. So he struck out the first word, and set the second exactly above it. But remarking that the article *ce* could not stand before *adorable*, he very nicely set a *t* after *ce*, and it then stood *cet adorable enfant*.

To satisfy himself that the somnambulist, in all these operations, made no use of his eyes, the archbishop held something under



his chin, sufficient to intercept the view of the paper, on which he wrote. But he wrote on without being interrupted by this obstacle in the way of his sight.—To discover how the night-walker knew the presence of objects, the archbishop took away the paper on which he wrote, and pushed other papers under his hand. Whenever they were of unequal size, the student was aware of the change, but when they were equal, he wrote on and made corrections on the spots, corresponding with his own paper. And it was in this way that possession was gained of some of his natural lucubrations.—Among other manuscripts, which the archbishop put into the hand of the encyclopedist are musical pieces written with tolerable exactness.

One night, having dreamed that he was beside a river into which a child had fallen, he went through all the actions tending to its rescue, and with teeth chattering as from cold asked for brandy. None being at hand, a glass of water was given him instead. But he immediately remarked the difference, and with greater impatience demanded brandy, saying he should die if none were given him. Brandy was therefore now brought. He took it with pleasure and said, as he smelled to it, that he found himself already better.

All this time he did not awake, but, as soon as the paroxysm was over, lay down on his bed and slept very composedly.

It was remarkable, and it coincides with the effect of the slightest irritation in recovering Mendelssohn from his inability, that when the imagination of this student in his somnambulism ran upon melancholy ideas, he could be turned to a different subject by stroking his lips with a feather.\* The feather, I suppose, by tickling the very sensible skin of the lips, induced a pleasurable sensation, which brought along with it a train of ideas, formerly associated with pleasure of the same degree, and dispossessed the intruders of a melancholy cast.

The power of distinguishing different sized pieces of paper may at first appear almost incredible without the assistance of the eyes. But one can conceive that this might arise from the touch joined to any

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\* Immediately on writing this sentence I touched the back of the hand in a teething child, while asleep. The whole arm, the head and the body, though quiet before, moved several times. The child had only its skin rather heated from the teeth, otherwise did not suffer, though it must be supposed to have the sensibility of its nerves exalted during dentition: but not more so than the nerves connected with the motions in a somnambulist.

exact habitual sense of the space, which the pen had to traverse every line. In the same manner, we may understand how the girl, observed by Sauvages, was able to walk briskly round her bed without running against any thing in the room. The same accuracy of step has been often but not always observed in night-walkers, when the most perfect use of their eyes could not have availed them; and why should not the arm of a student accustomed to write have as much? The accuracy with which actions are frequently performed in sleep, I have often known exemplified.—A consumptive patient of mine slept in a bed with a flat head, not above three feet high. Upon this he used every night to place a glass, two thirds full of water, for the reception of his expectoration. His attendants were frequently changed, and they all assured me, that he got up in his sleep when he had any thing to expectorate, took down the glass, and regularly replaced it on the bed's head. Nor did he ever spill any of the water except one night, when a bottle had been placed in the way of his hand to the glass, after he had fallen asleep. As there was plenty of light in the room, his not being sensible of

the bottle shews that he made no use of his eyes in taking down the glass.

It is nothing singular that the eye should be incapable of being affected as usual by light, while other parts are in the contrary extreme. Such phænomena are among the most common of those that are observed in nervous accessions. The stomach, for instance, shall be often so insensible that a glass of distilled spirit shall produce no more effect than a glass of cold water at another time; and this, in the case of a person, who has been all his life an utter stranger to the use of liquor of that strength. At the moment when the stomach is deprived of its natural feeling to such a degree, the mind shall be all alive to the groundless fear of immediate dissolution, and some of the senses shall be so ready to be acted upon, that a slight excitement shall produce a starting of the whole body. Other contrasts, equally strong, are observed in the indispositions to which the frame is liable. Who, for example, has not known the feet benumbed with excessive cold, while the cheeks were all in a flame? It is not, however, certain that the retina or expanded optic nerve, is ever torpid in such cases, the experiment of throwing a sudden light upon the eye, and observing,



whether the pupil contracts or not, having seldom been made.

In some cases, the susceptibility of visual impressions has undoubtedly remained, because the somnambulist has been sensible to some present objects of sight, though not to others. This partial attention seems clearly to have existed in the case described in *Zoonomia* (I. 19.) since the patient drank tea, when it was set before her, and smelt to a tuberosc, which last action might, however, have arisen from accurate recollection of the place where it stood. In the remarkable instance, frequently observed and described at large by PORATI, the same circumstance occurred. A young man in his employ, of the name of Castelli, who had often before suffered from nervous affections, took a candle and lighted it. Instead of going to bed, as was supposed to be his intention, he went down stairs, reached a book from a shelf in his master's study, and set to read. Porati several times desired him to go to bed, but received no answer, upon which he took away the light. Castelli upon this got up, and opened the window, observing—*it is cloudy, we shall have rain to day.* The master now replaced the light, and Castelli immediately walked up to it, and began

to read aloud. The people of the house collected round him, but he observed no one. They called to him, but he did not hear. The light being again removed, he got up, rubbed his eyes, and said "*I am not well; I must go out into the air.*" He accordingly went into the apothecary's shop belonging to his master. Here, other methods having been fruitlessly tried to rouse him, some spirit of hartshorn was held to his nostrils, when he immediately sank to the floor and fell into convulsions. After some minutes he had a tetanus or universal spasm of his muscles, which by degrees relaxed, and he slept. Presently, he awaked as out of a sound sleep, but knew nothing of what had passed.

Another time he fell asleep in the shop, but had continued only a short time in that state, when he opened his eyes, muttered a few words, lighted a candle, went into the study, and set to read. He was at this time studying French, and had to translate a passage out of the Italian. He ceased reading, took up the dictionary and made his exercise as well as if he had been awake.

They snuffed out his candle, when, without noticing other candles that were burning in the room, he went into the kitchen and

struck a light, by which he rekindled his own candle, and set to his task again. It was snuffed out again. He shut the window, as supposing the wind had blown out his candle, which he lighted anew; when Porati blew it out. He now grew impatient. He stirred the embers, took some matches in his hand and said—"Is that fire, or is it not?"—He lighted the candle and went into the study, where he took a dispensatory, examined by it some plants that stood ready for distillation, and found one right after the other. Porati now spoke to him about the plants. He immediately heard and answered as rationally as if he had been awake. He then fell asleep, soon awaked and was sent to bed.

On another occasion, a remark he made on a book which he was reading, excited in one of his comrades a suspicion that he was feigning. To ascertain this, the comrade held the flame of a candle to his hand, but he did not withdraw it. Next morning, he complained of a pain in the place, but did not know how it came.

He was repeatedly observed not to know any person or thing but what coincided with his passing train of ideas. When he went into the shop, if faulty recipes were brought

to him, he would soon detect the error, but did not know the persons who brought them, though they were his own comrades, but took them for servants who came for medicines.—He often tried to light a candle at a lamp standing under a glass bell, of which he was not aware; and it was observed that he could not distinguish two powders of which one had a strong smell and the other was without any. It was accidentally discovered that the waving of a fan threw him into a quiet sleep, and this expedient was frequently employed to stop him when he attempted to do what his master did not wish. The effect of the moving air was to arrest him suddenly, upon which he would sink down and sleep a short time, but his paroxysm went on afresh afterwards.\*

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\* The case of NEGRETTI, as described by PIGATTI, in the *Journal Encyclopedique*, *Juin*. 1762, is among the most celebrated of those that have occurred in modern times. This man had walked in his sleep from his eleventh year, though only in March or part of April. He went through his whole business as a servant with the utmost exactness. He lighted a candle, tripped down stairs, went to the door as if to attend a visitor, who was going away, briskly remounted the stairs, put out his light and set it in its place. When in the pantry, he searched his pocket for the key of the cupboard where the glasses were kept, and



MONTAIGNE in his infancy used to be awakened by soft music; and we have common sayings, which bespeak the influence of the feelings, that predominate at the moment of awaking, upon the temper during the day. But it would appear that the frame of mind in which we close our eyes is of still greater consequence than that in which we open them; and the chapter upon this subject, which is commonly to be found in books of practical piety, ought to be transferred to those of medicine.

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not finding it, called up the footman, opened the door, took down a salver and glasses, filled them with water, and handed them about. Upon their being returned to him some time afterwards, he carried them back and locked up the cup-board.—If the bore in the key was purposely stopped, he knocked it against the wall, and if that did not make it free, he looked for a splinter, with which he took out the matter with which it was stuffed.—At other times, he laid the proper table, dressed the sallad, fetching every thing that was necessary from the usual places—but if any thing was set before him in place of the herb for the sallad, he did not observe the difference.—He sometimes went very nimbly a couple of hundred yards to an inn, asked for wine, in place of which they would give him water, which he contentedly drank for wine, promising to pay next morning.—In this state he once told how he would pretend to be walking in his sleep; and laughed very heartily at the idea of thus imposing upon some person.

If we would procure composed, refreshing sleep, and avoid those seizures that make night so dangerous to the nervous, one thing to which we ought to attend, is obvious. That part of the organization which is concerned in mental operations continues, we find, to be affected for some time after impressions are received, even when there is no great intensity of feeling. For if this were not the case, the school-boy could not repeat his task better for a night's rest. Sensations also are revived with greater force, as well as ideas strengthened, during sleep. For agitations, which the objects themselves could not produce, have arisen from their nocturnal images. I had an epileptic patient, whose first fit succeeded a dream, in which there had occurred the idea of precipices in the Alps, which he had seen the day before. Thus nurses when they play with infants of a lively temperament, late in the evening, so as to raise strong emotions, frequently find that they soon awake disturbed; and people inclining to too great sensibility with weakness, either cannot compose themselves or else they dream much after the glare and noise of a ball-room or any affecting representations on the stage. Nor indeed is this confined to the weak, who should therefore

be particularly studious in the evening to avoid all objects which powerfully stimulate the senses as well as all ideas that may raise a tumult in the bosom. How faithfully do we find the consequences of this rule exemplified in the people around us, and especially in females who join in the train of fashion! What a satisfactory explanation does it afford of the effect of circumstances, that otherwise might appear too trivial to be followed by any distinct consequence! I have frequently heard it remarked by men of penetration, accustomed to the great world, and it is, I suppose, a perfectly notorious fact, that at the close of the season in London, women appear worn down, haggard and spent. During their stay in the country, their shrunk countenances regain a degree of plumpness, their muscles recover their tone, and they really feel somewhat of that flow of spirits, which they often afterwards so miserably affect. Persons, it is commonly seen, who are governed by different habits, conceive towards each other a species of antipathy, so quick and inveterate, that it may almost pass for instinctive; and many a fine lady, on hearing the œconomy of her time, arraigned by the sedate, has persuaded herself

that the censure proceeds from this feeling, and not from any foundation in reason. But it is only necessary for her to revert to the influence of her days upon her nights, to be convinced that the sober part of mankind do not barely arrogate to themselves a superiority, such as any clan or cast may arbitrarily found upon some insignificant distinction, but which no other need acknowledge. On the contrary, the advantage they enjoy is not less solid and permanent than the laws, according to which Nature has ordained that the human frame shall be affected. The throngs, by which the followers of high life are perpetually pressed; the dazzling scenes which they frequent in quick succession; their unceasing hurry of body and mind; the anxiety (to say nothing of the mortification) which every candidate for admiration must undergo; all contribute to stir up a correspondent tumult of imagination as soon as they are sunk into slumber. When they have tossed themselves awake, how can they help feeling more weary by half than on going to bed? Without spirit to raise their head from the pillow, even if they suspected this to be the best measure they could adopt, and in spite of constant disappointments, they still hope to find refreshment in an additional



nap. But another and another leave them but in more languid plight. We cannot therefore be at a loss to comprehend the tendency of that mode of existence, to which we see our countrywomen so emulously devoting themselves. The night is the season in which the vulture of fashion flies abroad for prey. Many of the primrose cheeks and aspen constitutions, which are to be met with so abundantly in the great world, exhibit the consequences of his secret depredations.

Before delivering themselves up to repose therefore, those who find or fear injury in this delicate part of the organization, have, not merely, to shun occasions of strong impressions upon their senses or their mind. It should also be their study to still the vibrations into which any inevitable impulses of the day may have thrown their nerves. A simple and natural life affords many resources for the purpose. From spring to autumn, the occupations attached to the cultivation, or at least, to the superintendence of a garden, will preserve the mind tranquil, or help to quiet its commotions. After a light early supper, a walk will diffuse that complacency over the system, which is the best preparation for sleep in all cases, and which will by

degrees bring the nervous valetudinarian to wake with the lark and with somewhat of the lark's alacrity. The dejected often feel as if the fresh air ventilated the mind. Early rising will reconcile us to early retirement to rest; and for at least five months out of twelve, it should be a rule with the invalids, whose case we are here considering, to go to bed before candle-light.

Whatever engages without anxiety should be appropriated to the evenings of the whole year. A tribute of winter-amusement might be levied upon the experimental sciences and mechanical arts. In the state to which they have now been carried, it requires but small ingenuity to render many of them perfectly domestic. A variety of tools and some philosophical apparatus, might be as conveniently placed in a house as many articles of our furniture; and they would be as useful as part of that is pernicious, or rather they would act as antidotes against the indulgence to which that invites, and make even our cushioned chairs and bolstered sofas salutary in their turn. I should not be surprised if, in a few years, it should become as common for persons to go about to instruct private families in chemistry, mechanics, in tangible geometry and various sorts of manu-

factures, as it now is in music and drawing. The lessons of the former sort of masters would help to save many from falling into nervous indispositions; and they would prevent others from suffering so severely by them—things, which can scarcely be said with equal justice of the professors of the fine arts. For their pupils not only suffer, as formerly mentioned, by the application necessary to excel, but in the case of music, they are often tormented into indisposition, by their very excellence. What young lady, till she is hardened by frequent exhibitions, can come out, though ever so conscious of her skill, to entertain a company without some flutter of spirits? and when she has acquired confidence, must she not find herself chagrined at the smallest deduction from her accustomed measure of applause, though that applause shall have ceased to afford the pleasure it gave when fresh—just as the dram-drinker is wretched on being deprived of his potion, after it has lost its ancient zest? Whereas witnessing processes in philosophy or the arts, or in rural œconomy, brings with it that composure which the nervous so much need. The spirit therefore that has just gone abroad in favour of useful pursuits, may lead mankind round to health, and exempt the

rich from the necessity of having recourse to the irritations of vanity to make themselves feel that they are alive. Hence it is to be wished that vanity may interfere as little as possible with this new system of amusement. For wherever vanity takes the lead, there will be danger that the constitution, as well as the character, should suffer; and indeed, in some habits, the inquietudes of vanity are alone sufficient to excite disease. This is a truth, which it might be well if those who devise and superintend plans for forming young people would keep more constantly in mind. Otherwise the objects of their concern will scarcely be gainers by the substitution of solid science for superficial accomplishments.

The scenes, presented by a new and beautiful country, have long been known to possess a soothing power. They, in fact, keep the mind in the medium state between anxiety and listlessness. Some knowledge of antiquities, agriculture, manufactures, mineralogy and botany, adds greatly to the beneficial effect of travelling. By diversified cultivation therefore of the understanding in youth, we lay up agreeable remedies in store against the evils of future years. I am persuaded every one, who has made the trial,



will join me in bearing testimony, how hopeless it is to set about to amuse a person who has had but a single pursuit, when bodily or mental infirmities once disqualify him for following it.

Whatever brings back the sensations of a healthier period, will more or less compleatly recall that action of the organs with which the sensations were once attended; and a degree of rejuvenescence may be the recompence of a well conducted journey. How can we understand the cure of a number of students by pumpnickel and suet, mentioned in a former Essay, unless we suppose that by carrying back the imagination to past pleasures, they occasioned the coats of the stomach to throw out the same healthy juices, which had flowed from them during the enjoyment of those pleasures? It is less likely that the direct application of this coarse and heavy fare to the stomach should have produced a change in its secretions. Upon the same principle, the cantatas of Bernier are said to have cured a French musician of a fever, though Rousseau declares them capable of giving one to a musician of any other nation. These cantatas were to the Frenchman's organ of hearing what the pumpnickel was to the palate of the Germans—a memorial of the days of

other years. We have abundance of examples, in which the mere sight of the spot, where a disgusting object had produced sickness years before, has re-excited it; and the smell of tar will occasion nausea in delicate persons who have suffered much at sea.

In joining my predecessors to recommend journeying for the purpose of health, I ought not to omit that the design is often frustrated by injudicious arrangement at our places of resort for invalids. The amusements are such that the ladies might almost as well have continued to frequent the routs and assemblies of their own residence; and the gentlemen their counting-houses. I would therefore advise those who are in earnest to get rid of indisposition, to shun places of glitter, parade and jostling. If there could be a paradise for loungers, BEAU NASH might perhaps have laid it out. But neither he nor his imitators could be expected to have talents to plan for the sick.

Persons who *must* be occupied, and yet have heads that can bear but little, differ so widely in habits, circumstances, and degree of indisposition, that concise directions for their use will appear trivial and commonplace. I know indeed that the art of impelling the body of thought and feeling into

a brisk current whenever it is inclined to stagnate, and of restraining it when over-rapid, would be well worth explaining ever so much at large, that it may be applicable to the diversity of exigencies. But I doubt whether there be any person, at once sufficiently acquainted with human nature, and with the sources from which lenient amusement might be drawn, to execute a task of such various knowledge and nice combination. But by the contributions of the ingenious, we may acquire something in addition to common games and light reading, which often do not answer, or of which the latter is always too soon exhausted. I know not if stories, such as are said still to be told, extempore, in the coffee-houses of the East, would not prove excellent *nervines* and *anodynes*. If well chosen, they must have all the advantages and none of the disadvantages of theatrical exhibitions. Our books, whether perused or listened to, are not, in some respects, near so good as the things they have banished.

The intelligent historian of his own epilepsy, who persevered for nearly ten years in observations and experiments upon himself, may be thought to have amassed less instruc-

tion for the benefit of his fellow-sufferers than in proportion to his opportunities and attention. And as there is a class of men who despise what they do not understand, so there is another, much more numerous, who scout, as fanciful, evils which they have never felt. To these, many articles in the valetudinarian's code of regimen will appear to belong to the same predicament as the late Emperor Paul's regulations respecting his subjects' hats, and the members of his soldiers on parade. But those, who know how often whole nights and indeed whole weeks, months and years, of patients with disordered nerves depend upon the mere turn of a straw, will not think the minuteness of some of the following measures so absurd.

Our epileptic found it of great importance to remove any obvious cause of wakefulness before he lay down to sleep, and to let its effect wear out, even if that kept him up an hour later. Washing the head for some time with tepid water before lying down, when there was any danger of flushing, throbbing, or noises in the ears, brought on sleep sooner and made it more composed. He at first resisted drowsiness, when it befel him immediately after supper, but found the resistance injurious to his feeble nerves, and



unfavourable to rest on going afterwards to bed. In this case, he found it best to yield to the inclination, but instead of lying down, to sit and recline only the head. At the end of a twenty minutes slumber, or sooner, in case of feverishness, he paced the room, chatted, and listened to a book, but by no means suffered himself to be raised to any pitch of vivacity.—After he had laid himself down for the night, friction from the head down the back and along the uppermost arm, for one or two minutes, by an attendant, seemed to have a composing effect. It was necessary to dispel the slightest chill of any part either by the warm bottle, rubbing, or additional bed-clothes. The nice adjustment of the temperature of the head was of the utmost consequence. On waking in the night, or lying long before falling asleep, he usually took a few mouthfuls of food, as the slightest sense of hunger occasioned great disturbance in the nervous system.

“ A few mouthfuls of some kind of rather  
 “ strong beverage had the effect of improv-  
 “ ing the heaviness of head, which more  
 “ frequently came on in the evening, into  
 “ compleat sleep ——— I am extremely careful  
 “ not to make this a daily custom, and  
 “ prefer the more natural expedients above

“ mentioned; however I keep warm water  
“ ready in bed, to mix with cherry brandy,  
“ as also mountain wine.”—Rubbing the  
temples with spirituous waters seemed to  
have a soporific effect, when there was a  
considerable weakness of the head.

The distress and mischief arising in epilepsy, nervous head-ache, and all kindred ailments, from that violent excitement of the blood-vessels, which produces the flushed face, throbbings in the neck or at the temples, and ringing or burning at the ears, is such as to justify all the care this invalid bestowed on their prevention. These symptoms foster the disease from which they spring. The thickening of the scull and induration of the brain, which have been found in many epileptics, are I suppose the consequence, and seldom or never the cause, of the complaint. They must take place on the same principle as the increase of bulk in the muscles of a blacksmith's arm. Similar alterations in the structure of the parts would, I doubt not, be discovered indifferently in all nervous persons, greatly troubled with symptoms about the head, whether they were exactly epileptic or not. Epilepsy might, in one sense, be said to be the consequence of such kinds of disorganization.

Frequent throbbings, flushings, and heats about the head, the tokens of too great action in its arteries, must, from all analogy, be regarded as capable of thickening the bones, and producing an alteration in the structure of all the parts, which the arteries feed. After a certain time, the parts altered; may produce epilepsy, by irritating those in their neighbourhood. Accidents have the same effect, and there is no difference in the two cases, except that injuries from violence do that in a second, which the other cause brings about in years.

It might assist considerably in the cure of disorders of this species, if instead of taking a short nap with the head reclined, while the body remains erect, the whole time of sleep were passed in that manner, as the force with which the blood flows to the head would then be lessened. Though the muscles in general would be less relaxed in this posture; yet the whole system might be more recruited; and the back could be supported, which would ease the principal muscles.

I have thought it a better plan to cool the head by wet sponges attached to an oil-case cap, or by putting over it a moist cotton-cap, than by applying water to the head itself. By this contrivance the cooling pro-

cess can be stopped the moment the point is gained, and without trouble or interfering with the invalids' comforts, it can be kept up for any length of time, which is of the highest importance, as every body knows that, after slight refrigeration, the tormenting heats return with tenfold violence.—In very distressing determinations of blood, as they are termed, I have sometimes advised a bucket with a cavity at the bottom, to receive the head. The bucket is filled with cold water, ice, or a freezing mixture, and suspended by a weight over a pulley. In hectic and nervous night-heats, the blood-warm bath, some hours before bed-time, has great preventive power, if it be not used when it is likely in these habits to excite feverish heats, as often happens, if it is taken immediately after a full meal.

The means which our self-observer opposed to his formidable *hurry of ideas*, may serve the purpose of evening composure with persons similarly constituted and circumstanced, if they will condescend to petty attentions in their own behalf. I shall therefore give the substance of what he says on this head. The facts are at least curious in a view to pneumatology. Nor can any thing more strongly paint the situation to which we



may be reduced, by letting the sensitive part of our frame get out of order! For what must be that man's misery, whose means of relief consist in speaking aloud and somewhat slowly, at those times of imminent danger, when he can speak at all. This, he says, seemed to moderate the random velocity of the mental power by distributing its action into the time, necessary to thinking and speaking, and into more space, by reason of the synchronous movement of the tongue, lips, and other organs.\*

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\* This seems a fanciful explanation. Nor shall we understand how such efforts prevent a paroxysm, till we know the exact difference in the condition of the organs when the patient feels well and ill. And of this we have not the most distant notion. All we can say is that the ideas and connected play of the muscles, on a successful attempt to articulate deliberately, set the head right by the power of association. In an epileptic accession, there seems some derangement of the brain and nerves, with which such efforts are incompatible. So that if the one state can be maintained, the other cannot take place. It is worth while to add that compression of arteries that carry blood to the head, has been found to put a temporary stop to nervous fits in a case where palpitation of the heart, headache, coldness of the feet, occasional shivering followed by extreme heats, particularly about the face and head, locked jaw, convulsions of the muscles of the neck and body, difficulty of breathing, stupor and delirium succeeded each other. In an attack of delirium, when the brow was contracted into

When he was not capable of uttering fresh sentences, consisting of his own thoughts, the recitation of couplets, which he had long had by heart, would succeed. So did going on to count the fingers, or some other objects in sight, aloud. He took care at first to enuntiate slowly and only a syllable at a time, but afterwards he went on quickly, and added objects and syllables.

In moments still more critical, when he was unable to pronounce above a single word, it was, as above stated, a few times of use to fix the attention upon some object, de-

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an immoveable frown, pressure on the right carotid artery, a little below the larynx, occasioned this expression of the countenance to vanish, and restored the patient perfectly to herself. When the pressure was taken off, the frown returned. The headache, difficulty of breathing, and convulsions were equally removed by the pressure. An epileptic fit, taken on its approach, was put off entirely for some hours. In a few cases of nervous and bilious headaches, it equally answered. It relieved the symptoms of inflammation of the brain, and of chronic mania. Curious effects were observed in disorders of another class. Compression of the temporal arteries immediately, for instance, relieved a gouty pain in the head which had come on in consequence of an inflammation of the same kind in the foot nearly ceasing; but the pain in the foot returned the same instant with violence. But this was removed on pressing the artery going to that foot.—(*Dr. Parry in Medical Memoirs, Vol. iii.*)

noted by one or at most by two syllables, (as *watch, chair, table,*) and to have it held up to the eye at the same time.—But these exercises were never pushed so far as to exhaust.

In the stupors, which often lasted for hours with lucid intervals of about a minute, when he was not only unable to articulate himself, and when also the sounds, uttered by others, failed to call up their accustomed ideas in his mind, he was most relieved by the contemplation of sensible objects. These did not require so much exertion as pronouncing a word, and yet they roused the mind so much that a wildly rushing stream of ideas was often arrested, dispersed, and thus far weakened in its dangerous course. This sort of occupation answered better—1. When the objects were strikingly new—thus wild beasts, troops on march, a full market-place, several times produced sensible alleviation.—2. On practising something quite easy, but not perfectly mechanical. To this head belong the simplest games with tables or at cards, an exercise in writing a fine hand, the copying of a precedent.—3. Oftner still, though not always, the morbid course of ideas was obviated by an impression, for which he had already conceived a predilection; for instance,

by receiving sensible tokens of affection from his friends, and by returning them; by pantomimic play with his children; by the mechanical preparations belonging to a favourite affair, as putting a cover on interesting letters.

He was master enough of the harpsichord to play a dozen tunes, that had remained at his fingers' ends since his younger days. But the repetition of these was too mechanical to drive different ideas out of his head, and learning new pieces required too much attention.—Listening to a vocal performer, to the nightingale or the harmonica, enraptured him, only on the first impression, enough to serve as a remedy against the press of ideas, and this end it sometimes answered; but after a few minutes, the diseased affection got the upper hand. He judges however that any one with musical propensity and ear, sufficient to follow the order of the tones, would continue longer to be diverted from other thoughts.

When the hurry of ideas came on in the night, but was not so violent as to make him rise to walk about, or play at draughts, he had no resource (unless he took medicine) but in going over, slowly in thought, couplets or forms of words which he had learned by



heart. He often found himself put out and overpowered by the irregular course of ideas, but by beginning the same form again, or going to another, he commonly composed himself so much as to fall asleep. He was told by another person that silently rehearsing the Lord's Prayer for a number of times, serves to dispel thoughts that tend to keep off his sleep.

Difficult as it may prove to give people of too sensible nerves effectual instructions for preparing themselves properly for rest, there remains a task which seems placed still farther beyond the sphere of human regulation. This is to provide that their rest shall be free from danger and real. In slighter cases it would be requiring too much of the healthy that they often should give up the comforts of their own nights, for the advantage of their nervous friends: and yet it is very manifest the effect of any services that can be rendered them must depend upon their being exactly timed.— Bed clothes could be made of cotton for that part which covers the trunk, and of woollen for the feet, while an additional linen sleeve might be drawn over the arm. When inordinate heat came on after sleep, as is so common with the feeble, it would be easy to contrive an apparatus, which should draw off the coverlid at

a given hour. Only we cannot be certain that the changes shall observe certain periods.

That sleep is not absolutely beneficial and in proportion to its duration, is a truth which invalids will not readily admit. There are however two cases, in which it proves the more weakening, the more it is prolonged. The one I have frequently mentioned. It is when the pulse is greatly quickened and the skin heated. The heat, no doubt, often depends in part on external causes, as a close bed chamber, or an excessive load of covering. But it will take place under opposite circumstances ; and then an alarm might be set to the particular hour, when the excitement is likely to have come on, that the body may be cooled by lightening the bed or by a few turns about the chamber. The second case which often occurs in conjunction with the first, is, where a disproportionately large quantity of urine is passed by night. Both are found to take place in the dyspeptic, especially after indigestible food, and in people inclining to be dropsical, as well as in the more strictly nervous. Every medical practitioner must meet with the latter, and a hundred authorities may be quoted for its existence in an enormous degree. **ISEN-FLAMM** mentions a person who became hysterical during confinement with her eighth child. The attacks grew gradually more frequent and

distinct. They were worst by night, when the navel was drawn in to the vertebræ of the loins, and there was the sensation of a round body, rolling about. This patient had another very troublesome symptom, which she called a screwing of the eyes. It was as if they were screwed together and then out of their sockets, whence a few drops of liquid flowed at the conclusion of the seizure\*—By night she was obliged to make water five or six times. At one hour, she would feel an irresistible impulse to discharge it as quickly as possible. At another, though in the same night, she could part with it quietly and even retain it without inconvenience. The first, she named the spasmodic; the second the natural urine. The first was limpid; the second deeper than that of a person in health. “ In  
 “ the evening, I regularly found five or six  
 “ glasses, standing full; each of about eight  
 “ ounces, and could easily tell by the colour,  
 “ that the third and fifth, for example, had come  
 “ away with a violent desire, and so was spas-  
 “ modic, while the rest was natural: nor did  
 “ *I ever fail* to distinguish them properly, as

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\* In this case, there was no doubt a spasmodic contraction, and perhaps an unequal one, of the muscles that move the eye-ball. The liquid consisted of tears and mucus, forced out from the glands.

“ the patient herself assured me. She slept very  
“ composedly between whiles, till she was  
“ awakened by the vehemence of call from the  
“ spasmodic.” (*Isenflamm prakt. anmerk. ueb.*  
*d. nerven.* 2 4 3, 1774.)

In cases somewhat similar, patients have found themselves most heated, when most pressed to evacuate the bladder. And it probably was so here. For it seems not to be in these nervous affections as it is in inflammatory complaints, where the secretion by the kidneys is scanty when the fever rages. But the nightly flow of urine goes on with the heat of the skin; though in the day, large quantities of watery urine shall accompany the chilly paroxysms, to which nervous people are so very subject. I have known an evident reduction follow a better regulation of the temperature of the bed-room. “ I have  
“ had patients, says Dr. Whytt, who after a  
“ long fever or some other tedious and weaken-  
“ ing distemper, made a great quantity of pale  
“ water in the night, but in the day time no  
“ more urine, sometimes less, than usual, and of  
“ a natural colour. This increased secretion did  
“ not generally begin at any certain hour in the  
“ evening, but soon after going to bed; and  
“ in the morning after getting up, it gradually  
“ abated. Nay a gentleman, who had been in  
“ use, for ten or twelve days, to make from five



“ to six english pints of pale water in the night,  
 “ finding himself greatly weakened thereby, re-  
 “ solved to try what getting out of bed would  
 “ do ; and accordingly, at two in the morning,  
 “ after having that night passed about a pint  
 “ and a half of urine at twice, he rose and sat  
 “ up for two hours, and then was able to make  
 “ but about half a gill. After this, he went to  
 “ bed again, and in two hours more made near  
 “ three quarters of a pint (12 ounces) of pale  
 “ water. This experiment was repeated some  
 “ nights after with the same event. Those,”  
 continues the author, “ who are troubled with  
 “ this flux of limpid urine in the night, find  
 “ themselves stronger, cooler and in the best  
 “ spirits in the evening, at which time their  
 “ pulse is slowest. But soon after going to  
 “ bed, their pulse becomes quicker, they grow  
 “ warmer and begin to make water in greater  
 “ quantity. They are not refreshed with sleep,  
 “ and in the morning, they feel thirsty and  
 “ languid, and have a quicker pulse than at  
 “ other times.”

Early going to bed will be of the more advantage to nervous invalids, as it must afford their friends an opportunity, in the first part of the night, of examining their state without inconvenience, and altering the bed-cloths if necessary. But a bed-fellow, or a person lying

in the same chamber, may be of the most essential service by rousing them, when parched with heat or when agitated with frightful dreams, and sometimes on the approach of different kinds of paroxysms. On this, as well as on so many other accounts, it is so desirable to make an acquaintance with the human body and mind, a branch of household knowledge. The wish to be useful would confer the faculty of observing; and the attentive wife of an epileptic husband would be able to give his physician instruction, which he could derive from no other source, and to which the patient himself might add. Twenty journals drawn up by as many attentive and ingenious couples, would I believe, do more towards the art of procuring composed sleep, and consequently towards breaking the force of nervous complaints than an hundred volumes by physicians, who have no better opportunity of information than the ordinary course of practise affords.

It is well known that when any one has urgent reasons for unusually early rising, if these recur frequently and with force the evening preceding, he very seldom oversleeps his time. The purposes of the day may, I believe, in almost every case be brought effectually to bear upon the mind in sleep. By repeated endeavours, I have very little doubt but perceptions may be gained

of the condition of the system at any moment, and that muscular action may become connected with these perceptions. Thus, the wish to preserve his nightly expectoration for my inspection gave the phthisical patient before mentioned perceptions, which he would not otherwise have had ; and to these perceptions, the movements of the arms and legs, necessary to his rising and taking hold of the glass, associated themselves. The history of the seven years' epilepsy affords another instance directly in point. " The following were the few expedients," says the writer, " which were occasionally of use to

" prevent wanderings of thought in sleep. I

" endeavoured, before going to bed, to rub, as

" it were, one or two favourite ideas into my

" mind. I sometimes read over tranquillizing

" passages, which I had previously marked in

" different books. I secured myself, as far as

" I could by the posture I took at going to

" sleep, against getting to lie on my back. I

" requested my wife, whenever I uttered a word

" or tone, betraying perturbation, to admonish

" me, and I readily heard her voice. *Several*

" *times while dreaming, I succeeded in calling*

" *to mind the determination I had formed,*

" *when awake, to put down for dreams any ex-*

" *traordinary scenes which should occur by night,*

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“ and in which it was impossible I could be engaged at the time.” By the same rule, were a person to fix it strongly, by frequent meditation, in his head, that he is apt to burn excessively during sleep, and that he is determined to awake, when he is in this state, it would probably often happen as he desires. It is so common to exert the will or to reason in dreams, that it would be impossible to account for the contrary opinion in a late sagacious author, if his arbitrary and untenable division of the sensorial power had not led to it. And if we will, and reason at all in sleep, why should we suppose that this faculty may not be strengthened and employed to advantage ?

*Further Remarks on the Affinity of*  
**NERVOUS COMPLAINTS.**

The proneness of noctambulists to loss of consciousness and convulsions, appears from more than one of the preceding examples. It might be confirmed by others. The lady, whose reverie or somnambulation is described at large in the *Zoonomia*, is one among the number. This did not escape the author, who remarks “ that reverie is a disease of  
“ the epileptic or cataleptic kind, since the  
“ paroxysms of this young lady always



“ began and frequently terminated in convulsions.” It may seem singular that at the moment our trains are so rivetted together that the most violent impressions on the senses, as shouting in the ear, cannot disarrange them, they should be on the point of being broken by a sudden change in the nervous system! But there are several analogous appearances in the human frame.

The near approach of that very frequent and very diversified affection, absurdly termed *hysteria*, to epilepsy, is still more evident. Nor can there be a stronger proof of their resemblance, than the necessity under which the definers of diseases have found themselves to blend their signs. Thus Dr. CULLEN, who, as we have seen, makes epilepsy to consist in *muscular convulsion with sleep*, applies these very marks to hysteria, and accumulates others upon them in order to establish the distinction: hysteria, according to him, being characterized by *noises in the belly—the sense of a ball rolling about there, ascending to the fauces, and then producing a sense of suffocation—by sleep (fainting, or loss of consciousness)—convulsions—profusion of limpid urine—by great, but not spontaneous, changeableness of mind.*

It continually happens that patients come

to medical practitioners with stories like the following. ‘ I was brought up in the manner  
‘ of most other young ladies. I read, played,  
‘ and painted a good deal, that is to say, my  
‘ amusements and occupations were almost  
‘ all carried on within doors. I was exces-  
‘ sively apt to be chilled, particularly in my  
‘ feet during winter. In sultry weather, I  
‘ was as much in the contrary extreme; being  
‘ overpowered by the heat. From my child-  
‘ hood I have felt feeble, and slight causes  
‘ would always bring on a sensible degree of  
‘ indisposition. Among these slight causes,  
‘ I reckon a little too much dancing, or  
‘ exertion of any kind, tea somewhat over  
‘ strong, buttered toast, fruit (particularly  
‘ after dinner), the sudden arrival of a person  
‘ in whom I was interested, the entrance  
‘ of a stranger without notice, or any thing  
‘ which came upon me unexpectedly. And  
‘ the hurry I felt on such occasions would  
‘ keep me indisposed at least till the follow-  
‘ ing day. After a ride on horseback, or  
‘ even a drive in a carriage, I had such an  
‘ increased weakness in my limbs, as in-  
‘ clined me to stagger, especially if I had  
‘ fasted some little time longer than usual.

‘ A change of constitution took place  
‘ early: I was at those seasons particularly

‘ languid and unwell, and troubled with  
‘ severe pain in the loins.—The complaints  
‘ which I at present consider as most grievous,  
‘ took place some years afterwards. They  
‘ consist partly in an aggravation of the  
‘ preceding. Besides, I am alternately sub-  
‘ ject to a fixed pain or uneasiness in some  
‘ spot of my head,—it is often a distressing  
‘ sense of cold on the very crown,—and to  
‘ giddiness. My ears will frequently set to  
‘ ring without any apparent cause: and my  
‘ eye-sight will grow occasionally dim. I  
‘ have at these times palpitations of the  
‘ heart, oppression attended with deep sigh-  
‘ ing, and extreme dejection of spirits. I  
‘ am obliged to let loose my cloaths after  
‘ eating, by way of relief to a sudden swell-  
‘ ing of the stomach, and this too is always  
‘ more troublesome, if I have gone without  
‘ food half an hour longer than ordinary.  
‘ An aching pain or sense of distention comes  
‘ on in the hollow of the side under the ribs.  
‘ I am in general under the necessity of using  
‘ aperient remedies, but their effect is at  
‘ times very violent. This state will indeed  
‘ every now and then take place without the  
‘ use of any medicines. There is often a  
‘ most pressing call to void urine; it is  
‘ colourless like water, and the quantity

‘ incredible. My appetite is unequal, some-  
‘ times very bad. My nights are seldom  
‘ refreshing. It is common with me to be  
‘ awakened by startings of the limbs, and  
‘ I have long observed small twitchings over  
‘ my skin almost every day. This is part of  
‘ what I more or less habitually feel. But  
‘ when I am particularly unwell, I am struck  
‘ by a deep and sudden anxiety. My breath  
‘ is very much oppressed indeed, so as to  
‘ induce a dread of being stifled; my heart  
‘ is as it were violently squeezed together,  
‘ and my feet are like absolute marble. My  
‘ power of speech is at the same time sus-  
‘ pended; with all my efforts I cannot collect  
‘ my ideas or find words. I have a prodigious  
‘ swimming in my head. I then totter to a  
‘ chair, and feel quite distinctly a round  
‘ body rolling upwards and downwards from  
‘ below my stomach to my throat, while  
‘ the part about the navel is dragged in  
‘ towards the spine. At these moments, it  
‘ is as if something was drawn tight round  
‘ my neck, or a ball was fixed in the top of  
‘ the throat. I sometimes do immediately  
‘ get rid of these feelings, and sometimes do  
‘ not, but fall into a state, in which my  
‘ senses forsake me; and I lie, as I am told,  
‘ in a swoon, either with a pulse hardly per-



‘ ceptible and scarcely seeming to breathe,  
‘ or I am drawn awry by spasms, or agitated  
‘ by convulsions, in which my hands and  
‘ feet especially bear a large share. In this  
‘ state my pulse bounds in a violent manner,  
‘ and my heart palpitates so that its throbs  
‘ may be seen through my cloaths. Meanwhile  
‘ a loud rumbling noise commences in the  
‘ stomach. After this has arisen to a con-  
‘ siderable height, the seizure abates, and I  
‘ come to myself by slow degrees, but am  
‘ apt to experience a distressing head-ache  
‘ for many hours after; and sometimes I have  
‘ perceived one of my arms to be particularly  
‘ heavy and benumbed. These sort of at-  
‘ tacks I have observed to be brought on by  
‘ any considerable unpleasant emotion of  
‘ mind, by sudden noises, particularly when  
‘ I have risen unrefreshed and tremulous, by  
‘ the scent of certain flowers and perfumes.  
‘ They often begin by a violent sneezing.

‘ The intervals become gradually more  
‘ distressing. There is a constant sense of  
‘ relaxation, or rather of all the flesh dissolv-  
‘ ing from the bones. On making an attempt  
‘ to perform the smallest office, which requires  
‘ a little more force than usual to be em-  
‘ ployed, the head seems full, the temples  
‘ and neck set to throb, the breath instantly

‘ grows short, and an aching comes on, preceded by an universal tremor of the limbs.

‘ All the time of the cold weather in winter I am miserable. The least breath of frosty air makes me shrink and sob, and, except in a very close room, I feel as if skin-bound for days together.’

What physician but would put down as hysterical a case, marked by such circumstances as these; and what reader but must see the very close resemblance between such a disorder and epilepsy? The following view of some of the principal phænomena in nervous affections, will render the resemblance more striking. There are few collectors of observations who do give instances (and in some they abound), of hysterical people becoming epileptic. The same is also true of hypochondriacs. The fact would not indeed apply as decisive evidence in favour of the opinion that both complaints possess a common nature, were it not for the similarity of symptoms. For a cutaneous affection, suddenly disappearing, has frequently been seen to be followed forthwith by an internal disorder of a character totally different, as the itch, for example, by a fit of the asthma. But when hysteria is followed by epilepsy, the general state of the invalid between the paroxysms is much the same, and the ner-

nous symptoms are only increased in violence, or varied in some of those modes, of which all nervous ailments are so peculiarly susceptible. It has been said by some writers that violent fear, as that of instant death, constitutes the sole perceptible difference, this feeling being the characteristic of hysteria in ambiguous cases. But I have seen two cases; one very lately, in which convulsions and swooning or sleep, with undiminished action of the arterial system, followed upon the sight of a person in an epileptic paroxysm, and returned with the hysterical ball and limpid urine, but no terror; and another, in which the seizures continued the same in other respects, only they come after some time to be preceded by alarm for immediate safety. The latter, if any one chooses, may be considered as epilepsy lowered down into hysterics. I believe, whatever names be used, terror will always be present, where the stomach is much out of order at the time of the fit. And it is sometimes curious to see in hysterical epilepsy, when medicines have removed the coldness and violent noises of the stomach and bowels, that the other symptoms, as trembling, torpor of the feet, spasms, and convulsions, shall supervene without the terror of dissolution.

Epilepsy is not to be distinguished from other nervous affections by being defined, *a convulsive nervous malady beyond the reach of art*. Epilepsy is not unfrequently cured by medicines. And there are many forms of nervous affection which hold a middle course between hysterics, epilepsy, and what has been termed painful epilepsy, (*epilepsia dolorifica*), because it comes on with pain as intense as any to which human nature is liable. And these have defied medical means, as much as any cases of epilepsy.—A lady is well known to some physicians in London, Edinburgh, and Bath, as also to the author of this Essay, who has some of the principal symptoms common to the three complaints, and whose variety of symptoms would make a pamphlet. I have seen her speechless, and with her mouth drawn to one side, by the most excruciating spasms, and imagined her insensible at the time, but she convinced me of the contrary, by afterwards repeating what I had said. She has never become insensible, except on bathing in the sea and on a few other occasions, but is left with her faculties entire to contemplate and feel her own wretchedness.

It is difficult to choose among the endless variety of examples. Yet in order to per-



suade people to avoid the common causes of all, it seems essential to impress, by a sufficient number of examples, the tendency of nervous complaints to run into each other. PEILL, LEIDENFROST, and KORTUM (*Beitraege z Arznei-wiss. Gottingen, 1796*), relate the case of a young lady, given to sedentary devotion and much subject to pulmonary symptoms and to spitting of blood among the rest. At twenty-three, depressing passions were followed by a strong hysterical fit, of which she had no return for half a year, except some slight, transient feelings. But at the end of that time, she was thrown by the same causes into a still more violent paroxysm. This left her in such a state three or four times every day, that a dreadful accession came on from provocations absolutely inevitable: such as the entrance even of a very familiar acquaintance into her apartment, the falling of a spoon, the unexpected approach of a cat, the noise of boys in the street.—Sometimes a sense of cold in the extremities, murmurs in the head, anxiety about the chest precede, but the patient commonly falls down without notice. Immediately upon this, violent convulsive movements begin, in which every part of the body is affected. Sometimes spasms bend the trunk

forwards, sometimes backwards; sometimes the upper extremities perform strange contorsions, sometimes the lower; sometimes quick motions actuate the tongue and organs of voice, and then strange inarticulate sounds are uttered. Sometimes the whole body is agitated at the same time, sometimes the head only; and the convulsions are so prodigiously quick and powerful, that a bystander would expect every joint to be dislocated. Yet she is generally sensible all the time, and if the tongue be free from spasm, answers every question naturally. Sometimes, though seldom, the head is affected, and she is delirious in the midst of the paroxysm. On the remission of the symptoms the patient complains of cold of the extremities, of excessive anxiety and oppression of the chest. At the conclusion of the report, she had continued for twenty years subject to these paroxysms though their frequency diminished. She lost nothing of her flesh all this time,

In the first part of *Zoonomia*, similar instances are briefly related, with a view to prove that delirium consists in convulsions of the fibres, which the author ingeniously supposes to exist in the organs of sense. But though the convulsions often stop when delirium comes on, the above statement proves

the succession not to be universal. The disorder of the nervous system is sometimes great enough to disturb it through its whole extent; and the apparent substitution of one symptom for another, goes hardly a step towards proving them to be of the same kind.

LEVRET relates the history of a female who during her first pregnancy had the hysterical ball in the throat, but during her next pregnancy, no hysterical symptom affected any of the internal organs, except that the voice was a little weakened. But she had convulsions of the external muscles, and these, when they came on, lasted several hours. About the fifth month of her pregnancy, she had two fits a day, which between them lasted eighteen hours. Upon the whole, she was convulsed half the time between conception and delivery,—that is to say—near 5 out of 9 months. The comparison of her two pregnancies may serve, among a thousand other examples, to shew how simple convulsions and hysteria play into one another. Uneasy sensations in the head, confusion, flying chills and heats, faintness, languor, palpitations, startfulness, disposition to be terrified, exist more or less strongly, and are compounded by the peculiarities of

constitution, and by accident, into all imaginable shapes. So that perhaps no combination of these affections could be feigned, which cannot be matched in faithful medical reports, and the reality exceeds whatever the most fertile fancy could invent in readiness to be affected, in violence, in the whimsical manner in which the symptoms are grouped, and in the rapid changes from one state to another. In this last respect, what is fabled in romances and masks concerning the power of enchanters' rods to induce, in a moment, the stiffness of a statue, or to restore the spell-bound person to motion, is much exceeded in nature; and it is possible that fiction took the hint from this species of reality, since it always must borrow from one species of reality or another. That the dropping of a hair-pin on the floor should make a person start from her seat, and fix her in a preternatural posture, by occasioning preternatural, fixed contractions of the muscles, or agitate her by contractions and relaxations equally preternatural, till she sink into insensibility, from which she awakes into vehement delirium, is hardly credible to those who are conversant only with the healthy, and the sorts of sickness to which the robust are subject. On comparing



an individual liable to these sad varieties of being, to the engineer who stands unmoved amid the thunder of a battery, to the seaman who maintains his footing upon the deck or ropes of his vessel, reeling under the shock of the elements, or to the Indian who exhibits the signs, and probably feels the throb, of intense delight, while the flames are preying upon his flesh, how astonishing do we find the range in human susceptibility to the effect of the powers by which we are surrounded! how important is it to consider the causes of the difference, if on the one hand we should have as much reason to suspect, that resistance to pain may be united in the highest degree to capability of pleasure, as we have, on the other, to be persuaded that those who have become in so high a degree sensitive, are nearly lost to all but painful emotions, and that if their organs are like wax in being impressed by external appulses, they too often resemble adamant in retaining what impressions they may receive!

*Remarks on some principal NERVOUS SYMPTOMS, separately considered.*

CONVULSIONS AND SPASMS.

These symptoms are among the most common of all. In the usual order in which in-

dispositions of this class arise, they begin by occasional stiffnesses in some of the limbs. These are owing to increased tone of the muscles, not yet strong enough to be denominated spasm. At the same time, palpitations of the heart from slight sensible impressions or emotions are frequent. A small number of the fibres belonging to a single muscle, act quickly and forcibly, and give a feeling as if the skin was alive. On going to sleep, a sudden disturbance is produced by the shock of a whole limb. The days grow more and more comfortless; the nights less refreshing. The stomach gets out of order; and females are distressed by variety of irregularities and weaknesses in the functions peculiar to the sex.

There are two powerful reasons, which ought to induce every invalid in this degree to recur to measures, fitted to restore the constitution to its healthy state. In the first place, he may promise himself that his measures will be successful: and, in the second, there is reason to apprehend from the close affinity between nervous complaints, that the continued operation of the same causes will aggravate the present slighter symptoms into some grievous malady; and that any powerful occasional cause, though it might operate

upon people of firmer temperament with little injury, will plunge those, who are thus prepared, into the horrors of convulsion, epilepsy, or some kindred, but anomalous complaint.

An account of restorative remedies does not belong to my plan. But though with moderate skill in their application, they are almost certainly efficacious, it will be of little service to be restored to a healthy state of feeling, unless the necessary endeavours be employed to secure by regimen the advantage that shall have been procured by medicine.

Many of the general directions in the foregoing numbers apply to this purpose. Of this kind are the contents of the latter part of the fourth essay, upon which too much stress cannot be laid. It is equally necessary to guard against the errors in living that lead to consumption; for it is perhaps more generally true, that those who become consumptive in our climate are previously nervous, than that they are previously scrophulous. The reason will easily be understood from the discussions, which this point has undergone. Such are the vicissitudes of the atmosphere of these islands, and such the tendency of our habits, that constitutional

weakness will very frequently be visited upon the lungs; and, more frequently still, will constitutional weakness shew itself by tremors, startings, wakefulness, fatiguing sleep, and by other indications, enumerated in the course of the present Essay.

Our most attentive observers have noticed the connection between these two classes of complaints. Thus I find it remarked “ that a “ *phthisis pulmonalis* may be also the consequence of nervous disorders, when the “ morbid matter producing them falls chiefly “ upon the lungs, or when the vitiated chyle “ or blood forms obstructions in that organ.” I only wish my readers to take the authority of Dr. WHYTT, perhaps the best writer we have, certainly the best of the older ones, on the present subject, in reliance upon his long and attentive experience, without paying any attention to his hypothetical explanation of the fact.

It is a striking coincidence, that cold, slowly or suddenly applied to the feeble, will in proportion produce either or both diseases. We have seen how this cause acts upon the lungs. Twitchings of small bundles of fibres and startings of whole sets of muscles, are perpetually produced by imprudent cold-bathing, together with depression, confusion



of head, and a whole tribe of kindred symptoms. The lady alluded to above, as uniting painful and common epilepsy with hysteria in the same person, and who never spends a day, and seldom an hour, without severe distress in some shape, had all her symptoms aggravated by immersion in cold water. I have known slight passing stupors converted into epilepsy by the shower-bath. A remarkable instance of the bad consequence, resulting from the vulgar persuasion of the bracing effect of cold bathing in a nervous invalid, was lately mentioned to me in conversation. It was the instantaneous production of the worst of convulsive diseases.—A nervous lady, who, contrary to the advice of her medical attendants went into the sea, was seized with epilepsy on the spot, though she was not only free from apprehension, but full of expectation of benefit. The fits continued at intervals, as I was assured by Mr. THWAITE, junior, a very ingenious apothecary of Dublin, by whose permission I here produce an example, so capable of affording a salutary lesson to invalids.

### *CATALEPSY.*

Before I quit the head of spasm and convulsion, I shall add a few words concerning

a curious affection of the system—not that I consider it as of particular importance to my readers, but lest it be supposed that I have overlooked what I ought to notice. This is *catalepsy*. The popular names of herbs frequently betray ingenuity, and sometimes elegance of fancy. But in chemistry, anatomy, and medicine, many denominations imply unsuccessful, or at least misplaced, attempts at wit, which shews the taste of the learned to great disadvantage, in comparison with that of the unlearned. As epilepsy means the disorder that suddenly seizes, catalepsy, I suppose, means that which both seizes suddenly and holds fast. Catalepsy may be regarded as rudimental epilepsy. The muscles have a contractility which seems to tend towards spasm or convulsion, and, in the continuance of the disease, rises into those affections, or alternates with them.

Catalepsy often comes on with some slighter nervous affection, as a sense of weakness in the whole body, tremor, nausea, pain in the nape of the neck, cramp in the stomach. The patient retains the position in which the attack finds him; if he is standing he remains so; if he is gesticulating, he preserves his posture. The vocal organs are arrested in the midst of a word, and often

finish it afterwards. The trunk and limbs are perfectly passive. If the arm be raised to an angle, it does not descend in the smallest degree. Consciousness is suspended. The pupil of the eye has been observed, in different cases, not to contract on the approach of a strong light, or to expand in the dark.—But it is in vain to expect an exact continuance of the same state of symptoms in any considerable number of nervous cases, or that the infinite number of moving and sensible parts in the human frame shall act and feel alike. I have above mentioned a boy, cataleptic in the large muscles that keep the body erect, but convulsed in those of the voice.—Sometimes during the quiescence of the external muscles, deglutition takes place when food is put into the mouth. I have lately heard, on good authority, of a person subject to short seizures, who answered, after recovery, almost any number of questions proposed while he was affected. Here it is evident that the ear was duly affected by its appropriate impressions, but that a suspension took place in some part of the series of animal actions between the affection of the external sense and the motion of the vocal organs. It is to be wished that the

ingenious practitioner, who had the care of his patient, will have availed himself of so rare an opportunity of ascertaining different particulars concerning the operations of the human intellect. From the facts, as above nakedly stated, it would appear that the effects of sensible impressions are of some, not inconsiderable, duration; and perhaps the exact time of their remaining at a certain intensity in given states of this individual might be ascertained. This, as I shall have occasion presently to point out, is a question of some importance.

The paroxysms are often short, but some are described as lasting almost twenty hours. They go off with uncomfortable feelings, as languor, dejection, drowsiness, headache and vertigo. Catalepsy occurs in the intervals, and apparently as the substitute of hysteria and similar affections. Patients have carried the disorder about them for life without apparent detriment, as has sometimes happened too with regard to epilepsy. But catalepsy, when not cured, as it generally may be with great ease, will pass into a more alarming form of nervous affection, and has been seen to end in madness itself.

The very same state of the internal organs has been observed, previously to accessions



in catalepsy as in hysterics and epilepsy. And on dissection after death, the very same alterations have been discovered in the skull and the parts which it contains, as those already described in epilepsy.

### *GIDDINESS.*

Giddiness, or vertigo, has been the subject of many elaborate disquisitions by medical writers. Among the last who have distinguished themselves are Doctors HERZ, WELLS, and DARWIN. I shall have opportunity in a future work to state the facts they have observed, and to bring forward my own sentiments. The reader versed in physiology, will have no difficulty in collecting from what follows, that I have not been able to adopt the sentiments of the illustrious Darwin. It is impossible not to feel the powers, which he has exerted on this question, but there are few where his ingenuity appears to me to have been less successfully exerted—an observation which I introduce here, lest it should be supposed that I neglect a great authority merely for want of having considered it.\*

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\* The fault of Dr. DARWIN's theory of vertigo, as happens in other instances of erroneous philosophizing, lies in bring-

As to the nature of giddiness, I refer to simple feeling. Let any one, who is unacquainted with it, turn round on the same spot

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ing together as cause and effect phænomena, which do not belong to one another, and where they do, in putting the effect for the cause.—Thus it is observed, “when a child “can stand erect, if you gain his attention to a white “handkerchief, steadily extended like a sail, and afterwards “make it undulate, he instantly loses his perpendicularity, “and tumbles on the ground.”—(*Zoonomia*, article *Vertigo*) Now I doubt not but this simple experiment has frequently sounded decisive to readers, not over-scrupulous in receiving opinions. Yet it remains to be proved that the fact belongs at all to the subject of vertigo. A child can hardly explain himself as to his feelings. Certainly there appears no sign of vertigo in the eyes of children, suddenly falling as they have just begun to walk, or in their locomotive powers immediately afterwards. So that the affection would seem very slight and transient, if it exist at all. Other phænomena, exactly analogous to this, render it probable that the falling child is not giddy. In the subject of the experiment, certain sets of muscles, by supposition, have just acquired the habit of moving together, and others in succession. But such new associations, we know, are dissolved with the greatest readiness. The intrusion of almost any new impression is sufficient. Thus, when a child has just use enough of his hands to hold any small object, if you attract his eye to something else, he instantly lets go his hold. In a month or two more, he will at once retain the first object and observe the second. But what has the one state or the other to do with giddiness? No one, I presume, suspects that it has any thing. Yet, where is the difference in the two experiments? In the unencumbered arms of children, the

for a time; and he will understand the import of the term. I am concerned with it only as a concomitant of nervous affections. It attends them all, that is, it exists in a considerable number of epileptic\*, cataleptic, hysterical and other nervous ailments, though in certain other cases under each denomination, it may be seldom felt. Swimming and confusion in the head seem to be sensations nearly allied to vertigo, only inferior in degree. They all diminish or dissolve the connection between the ideas and muscular actions, as well as those between the different sets of muscles themselves. This is matter

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muscles gain the power of acting together so as to grasp, sooner than those of the legs, trunk, and neck, so as to keep the body erect, and to move it forwards. When an impression upon the eye destroys the co-operation of the one or the other, it subsists in nearly the same force in them respectively; and many other impressions upon the eye will succeed just as well as an undulating white handkerchief. So will many impressions upon the ear. And I apprehend there can be no just suspicion of vertigo upon these occasions. Some horses are never so liable to trip or fall as when slightly startled. Here is again the same effect—a stop to the usual progress in the combined action of the muscles. Have we any reason to suppose the horse feels giddy?

\* Vertigo, et maculæ nigræ, ab oculis volitantes, a quibusdam epilepticis vix unquam absunt. (Heberden, 140.)

of familiar observation. Every one feels less firm upon his feet, less able to muster his thoughts, and less free in the use of his powers in general, when the head is confused; when it swims or feels dizzy. Aptness to these sensations in any degree, is nearly the same thing as aptness to become nervous. Whoever has been educated, or manages himself so, as to escape this propensity in all its gradations, will have great certainty of exemption from the larger number among nervous disorders; nor will any thing perhaps induce the calamity, unless it be one of those overwhelming accidents, which bear down the moral faculties, as the fall of a building crushes the body. Probably indeed the mind can be more entirely withdrawn from the dominion of accident.

The doctrine of temperance in respect to meats and drinks, will strike every one in the first place as essential to his security against habitual vertigo. It follows nothing more frequently than those states of the stomach, which arise from the opposite extremes of gluttonous debauchery and abstemiousness. When the digestive organs are reduced by either means to that state, which is accompanied by nausea, retching, acid eructations, heart-burn, foul tongue,



bad taste in the mouth, flatulence and irregularity of the bowels, it rarely happens that the head continues steady. As the hypochondriacal and the hysterical are always subject to be plagued by these miseries, it is no wonder that giddiness should be one of their most frequent complaints. Dimness of vision, which is so nearly allied to giddiness, has often been seen to depend in a very curious manner upon the state of the stomach. Observers of undoubted fidelity have met with cases, in which persons subject to sourness in the stomach, have seen every thing as indistinctly as if a thick smoke or mist were before the eyes, whenever the sourness arose to a greater height than usual; nor did clear vision return till the state of the stomach had been changed by absorbents, vomits or bitters. The same is the case with regard to noises in the head. I know a person, who if he waits too long for breakfast, is subject to these noises, and is unable to hear his clock strike from his sitting apartment; and in whom eating removes the noises and restores the faculty of hearing. It follows that fasting should never be so long continued as to be succeeded by so troublesome, and in many cases, so dangerous a forerunner of nervous disorders as giddiness.

It is too well known to be insisted upon at large here, that the frequent use of strong liquors renders giddiness almost a standing symptom. Drunkards not unfrequently fall into the unhappy necessity, as it appears to them, of recurring to their bane; for they find themselves scarcely able to perform so common a motion as walking, or even standing, with steadiness, till they swallow a certain allowance of the liquors that have reduced them so far to the condition of second childhood. I know not if this opinion arise from want of information or from the mere weak desire of indulgence. But whatever be its origin, it is an error, and a dangerous one. The inability may, and ought to be taken off at the moment by means that have not only no subsequent tendency to increase it, but the power of restoring to the limbs their proper firmness.

Intemperance of another kind directly tends to induce that deplorable vertigo, which verges on the most incurable forms of nervous complaint. In speaking of the effects of mens' own conduct, I feel that I ought not to pass this source of disease unnoticed, but, to avoid giving offence, I shall content myself with quoting from a writer of vast experience and unquestionable

veracity, the following account in a dead language. “ Jacturæ nimia seminis gravis-  
 “ simos et sæpe insanabiles vertigines facit :  
 “ tunc præcipue, ubi semen turpissimo vitio,  
 “ quod vinculum illud, quo sexus sexui  
 “ jungitur, divellit, et licitæ veneris tædium  
 “ ingenerat, manustupratione scilicet, effun-  
 “ ditur. Alia occasione de morbis ex manu-  
 “ stupratione ortis agemus. Id notasse modo  
 “ sufficiat, morbos ex hac impurâ scaturigine  
 “ ortos aut nunquam aut vix curari. — —  
 “ Illud quoque hic adhuc addam, curam  
 “ nunquam a sola pharmacia inchoandam  
 “ esse ; etenim tanta est nervorum per ite-  
 “ ratos actus irritabilitas, mobilitas, *ευμεταβησία*  
 “ tanta, idearum allicientium vivacitas tanta,  
 “ tam prompta actionum huc pertinentium  
 “ successio, ut medicamentorum roborantium  
 “ nervorumque usus multum impar sit, quia  
 “ irritabilitatem ipsam, quæ corrigenda esset,  
 “ vi suâ nervirâ irritent magis. (*Max. Stoll*  
*prælectiones in diversos morbos chronicos.*)

It will easily occur to the intelligent reader that this is to be extended beyond the single habit, here described as injurious. It is common to see all the nervous symptoms enumerated in the course of the present tract, and nervous atrophy, originating in the marriage state, and especially among the weaker

sex, from a cause little suspected by either of the parties. The cause alluded to, like others which agitate the system with strong sensations, is the more mischievous, the more the system is already inclined, by excessive sensibility and weakness, to nervous disorders. So true it is that *on a abusé d'un petit nombre d'observations pour en conclure que le mariage est le remède à tous les maux des jeunes personnes. Il n'y a rien de plus faux.\**

Whatever other causes may be concerned in the production of a confused or dizzy head, there is one universal among the more cultivated members of society. This cause is seldom left to operate singly, but if it were, it would be adequate to the worst effects that are observed in nervous cases.

We have already seen that a feeling of vertigo seldom fails to be experienced, when a number of impressions are received in rapid

\* Zimmermann a vû une jeune femme, que s'étoit blessée plusieurs fois après des coliques spasmodiques, très-fortes, et qui avoua enfin que ces coliques étoient la suite des devoirs conjugaux remplis trop souvent par son mari—ce qui lui occasionnoit une extrême foiblesse, et ensuite ces douleurs atroces et insupportables.

J'ai été consulté pour un mari et femme, chez qui les mêmes excès occasionnoient les mêmes accidens, peut-être même plus forts chez la femme.—(Tissot.)



succession by any of the senses. It is most sensible in the weak, but never fails to affect the strong, if long enough continued; and by frequent repetition will lower them to an equality with the weakest. "I was acquainted" says Dr. HERZ, "with a man whom the whole country admired. His conformation rendered him liable to accumulations of blood in the head, and by intense exertions of the mind, he had contracted an excessive weakness of the nerves, during which he could not withstand the conversation of a certain friend, who possessed great loquacity, and always let loose a very rapid stream of words, without experiencing a vertiginous seizure on the spot." Dr. HERZ adds, that he had once the care of a young man, so weakened by the habit, spoken of in the preceding latin quotation, that at last he could not listen to a person, speaking fluently and in a moderately energetic manner, without becoming so giddy as, for fear of falling, to be obliged to sit down or lay hold of some neighbouring object. We have seen that slighter occasions still will bring on fits in some epileptics.

The continued noise of a waterfall, or the uniform sound of a mill, excites a slight

dizziness, says the same author; as any one may convince himself by his own experience, and this without particular predisposition.

A great number of objects, viewed in quick succession, breed indistinctness in strong-headed people, and dizziness in others. So do a number of ideas, quickly following one after another, whether excited by associations that take place in some diseases, or irritations of the senses.

A certain rate of presentation, therefore, of impressions and ideas, is necessary to clearness of comprehension; and if we do not dwell upon each for a certain time, it will not only fail to retain its place among its associates, but do some violence to the intellectual organs. Of this violence, the feeling of embarrassment of thought seems to be one degree, and giddiness a higher. The familiar experiment of whirling a fire-stick, shews the senses to continue to be affected for some time after they are struck; and facts, already laid before the reader, seem to indicate that the parts of the nervous system, connected with the senses in the performance of mental operations, are in the same predicament. It would appear, therefore, that the power of these organs to perform their appropriate functions, will be im-

paired by stimulating them into one kind of action, while that, excited by another, keeps up in force. But if so, a very principal part of the nervous system will be deranged in its movements; that is, some nervous malady will manifestly be induced, though we may not be able to trace the morbid progress any further, in the altered state of the organs.

The improvement of the mind, resulting from geometrical studies, is universally remarked. I know not if it have been tolerably explained. But it is evident that one of its effects is to render the impressions distinct, by the necessity of dwelling for some time upon each. For it is notoriously impossible to proceed along the steps of a demonstration, without a clear conception of the preceding. A diagram like that of the fortieth or the forty-seventh propositions of the first book of Euclid, appears a perfect chaos of lines to the inexperienced eye: but use in contemplating such objects, confers the faculty of singling out every square and triangle, as if it were not traversed by the lines of any other.

But not only is each impression more perfect from the compulsory pause of thought, but the links in the ideal chain are more

firmly closed; or, in other words, the associations are stronger.—Beginners are always awkward in designating angles. They puzzle themselves by saying *this* angle and *that* angle: but are at last obliged to mark every one by its denominating letters. There can hardly be a more profitable exercise in association. Others, as the experimental sciences and the law, are good. They have nearly the same requisites, as their terms do not disturb the clear current of thought by stirring up the mud of feeling. Either, gently administered, may be efficacious in the complaints, of which I am now treating. A maddened brain has been composed by mathematics, and I think the whirl of some vertiginous ones may be controuled by the same charm.

In many mechanical arts, the more deliberately the apprentice makes his first movements, the nimbler does his hand finally become. It is with the head as with the hand. A person, by once receiving his impressions slowly, will come to call up a multitude of distinct ideas in a short time. He will be able also to bring premises along with remote consequences into a single point of view—much like the surveyor, who by pushing his triangles, one by one, over the



face of an extensive country, gets all the objects it presents, in their relative situation, within the compass of a few sheets of paper, and finds his labour as efficacious as if he had actually enlarged the sphere of the human senses.

Thus it is to attain quickness without confusion. But it is the misfortune of almost every one in circumstances to study his own amusement, by proceeding too rapidly from the first, to miss the quickness and to get the confusion. This misfortune is the parent of a thousand others.—*Did you see the papers to-day? Have you read the new play—the new poem—the new pamphlet—the last novel?*—You cannot creditably frequent intelligent company, without being prepared to answer these questions, and the progeny that springs from them. So you must needs hang your heavy head, and roll your blood-shot eyes over thousands of pages weekly. Of their contents at the week's end, you will know about as much as of a district, through which you have been whirled night and day in the mail-coach. The STATIRAS of one stupid fiction join with the ALEXANDERS of another, to mob the memory; and between them all, they breed as great a hubbub in the brain as that which prevailed in AGRAMANTE'S

camp. What wonder then that we should hear complaints against the age as wanting energy of feeling and compass of mind? What wonder that while idea reels against idea, we should so often experience an analogous unsteadiness of footing?

It had fallen in my way, several times before, to speak of novels, as baneful to health. I hope now that I have led the reader to a situation from which he can perceive the mischievous inward workings, occasioned by quick, desultory reading in general. Concerning the effects of fictions that kindle the tender passion, there remains a great deal more to unveil, if one durst exhibit them in their nakedness. A modern author of good credit assures us that he knew a female, so affected by the reading of a romance, having for its subject a disappointment in love, as to be deprived of her senses and fall into convulsions. (*J. P. Michell, M. D. in his answer to the question by the Utrecht society*). Who has not found how much the ideas of the mind influence the bodily members? How quickly, for example, does the thought of a favourite dish make the mouth water, that is, occasion the salivary glands to act with increased vigour? Other parts offer a handle to the mind equally

with those glands. Pursue this principle, and you will understand how possible it is that a variety of prevalent indispositions, as *fluor albus*, tendency to miscarriage, and even a dropsy of the ovarium, may be caught from the furniture of a circulating library.—Thus, then, do disorders of a very different nature connect themselves with nervous disorders by community of origin. The connection may be traced a great deal further still.—In natural men and women, whose pulse heaves slowly into a vigorous stroke, the vital motions proceed in an even and placid tenor. The face is not flushed. The feet are not frozen. No excrescences arise. The most accurate anatomist cannot feel out any disorganizations. These evils are shared among the luxurious and the indolent, whose artificial modes are for ever destroying the balance of action in the system, and reducing one part to death-like torpor, while in some other, as if to make amends, they excite a mischievous activity, or kindle a spurious sort of inflammation.

The last century witnessed a great alteration in the culture of the youthful mind. Wise men joined in condemning the jargon of the books used in the first stage of tuition. At the call of these wise men, a hundred

writers seized the pen in behalf of the tender mind. And a new species of literature was created by their generous zeal. I shall not dispute that the adoption of intelligible books is a great improvement in early education. But I think myself certain that there remains a greater still; namely, to lay the use of books pretty nearly aside, and, during the season of the mind and body, to trust principally to the senses, directed by the living voice—that living voice, which, as Quintilian says, affords substantial nourishment, while books (it is certainly the case with much reading) do little perhaps but stimulate. As years advance, the mental diet may be gradually changed. Book-knowledge may be mixed with oral and sensible instruction.—The juvenile library! With submission, I must consider it as little better than a repository of poisons. What acrimonies will it not engender in the habit! what obstructions in the body! I know the ardour with which the little students seize these intellectual delicacies. I have seen how the parents delight in their eager application, reflecting all the time how much better off their children are than they were themselves at the same age, and gratified by recollecting their own disadvantages.



But do they not over-rate these disadvantages? Worse books were put into their hands, it is true. But then they had a great deal less of books. It was an article, of which they took only just what they were forced. So the quantity perhaps will compensate for quality.—At least, if little people are to be encouraged to read as continually as those of larger growth, one thing is but fair. The parent, when he brings a daughter or a son, “morbidly alive in every nerve” to the physician, should be candid enough to tell, how many dozens of Lilliputian volumes he devoured within a few years after he learned to read, and of how many hours’ use of his limbs and senses he was daily defrauded in consequence.

It is not here the place to explain how to render education, at its outset, less dependent upon books. One expedient is obvious. Parents have read themselves. Let them then serve out the information they have collected in proper portions to their family. But methinks I hear parents own that they have read enough, but have lost all their reading. Well then, why do they wish the children to read so much?—It is plain it does not improve; and it cannot be for mere amusement, as might have been their own case when

grown up. Running about is as amusing to children, and wholesome into the bargain. Children will remember much better what they hear, if well told, than what they read. Let parents then henceforward read on, but let them read so that they can relate. They will, I know, go over less than one tenth of the pages, but they will be twenty times as knowing, and in trying to preserve others from the imbecillity, under which they labour themselves, they will recover a share of the vigour they have lost in literary dalliance.

I have heard it remarked by foreigners that the English gentry make, in general, less use of their limbs than those of any other country similarly circumstanced. It is certain that the customs of our female gentry are, in this respect, exceedingly unnatural, and, without subtilizing too much, one may conclude that this circumstance will render them much more subject to vertigo, and to all the evils, usually complicated with it. One consequence of suffering their natural powers to languish in inaction can scarcely be doubted. These powers will perform their office imperfectly. The muscles of locomotion, like troops insufficiently disciplined, will be easily thrown into confusion; and the accidents, that tend to disunite our

trains, will have the worst effect on the correspondence in the action of whole sets of muscles, while they break the connection between the ideas and the single muscles, of which the sets are composed. The experience of instability will confirm the apprehension of falling: and this apprehension will be attended by an eddy of thought, which will in its turn act upon the sensitive and nervous systems with force sufficient to produce fainting, and perhaps a convulsive fit.

Chagrin or apprehension, in any other circumstances, will often occasion giddiness, or a standing disposition to giddiness. During these states, a torrent of ideas rushes upon the mind; and the result is the same as too quick a succession of impressions upon any of the senses. Hence there is a class of valetudinarians, particularly affected on looking down from a height—a common cause of giddiness, but into the manner of whose operation I do not here propose to enquire. This class includes all the feeble and the low-spirited, the hypochondriacal with the hysterical. Thus STOLL, who was a slave, and afterwards a victim, to the extensive practice of medicine at Vienna, found a very large proportion among the monks, from mere dread of a fall, incapable

of preaching from an elevated station. No one can be surprised that hypochondriasis should be the endemic disease of monasteries.

Giddiness is the well-known consequence of raising many convalescents into an erect posture, as it is also that of various modes of conveyance with some individuals. But I pass over these facts as little subservient to my purpose of pointing out the manner, in which diseased habits are contracted, and that in which they may be avoided. I do not always particularize every variation even in the circumstances, that strictly belong to my plan. For that would too much dilate the execution; nor will readers of ordinary attention and sagacity find it difficult to supply the omissions by the help of analogy.

### *CHILLS—SHIVERINGS—HEATS.*

Nervous people cannot be said to be subject to the “fierce pains” of temperature, but their uneasinesses are, in return, frequent, and indeed almost continual. It is with these invalids worse than with children, who in sultry weather are wan with languor, and in frost, unless well protected, become lumps of ice. When young persons, who live much within doors, begin to have too great



susceptibility of cold, this irregularity of sensation, though only the first stage of disease, and commonly neglected as such, should be considered as a sign that the constitution is in danger. In general, other symptoms will not be long in making their appearance. As the same temperature of the atmosphere, which used to be felt as comfortable, has now become the reverse, so will it happen in a short time with all the other powers that act upon the system.

Unpleasant feelings will arise in most of those situations, in which an agreeable sense of existence used to be felt. A burning in particular parts, as in the palms of the hands and soles of the feet, flushings, heaviness, headache, twitchings, pain and startings from noises formerly borne without inconvenience, disrelish of food and of occupation, and lowness of spirits, will arise in regular succession to indicate that so many sets of nerves have lost their natural or healthy faculty.

The patient's comfort for life will be totally lost, unless a thorough alteration take place in his habits. The most essential is to introduce an increase of muscular exertion. A little digging, early in the morning, or turn-

ing on the lathe, a few strokes of the saw, or a brisk walk in quest of some interesting object will excite the arterial system sufficiently to guard against that debilitating chilly accession, which makes weak people all day good for nothing,—unless it be to pore over some production of the Minerva press by the fire-side. I suppose the cloathing in this case to be what the season requires for warmth, and the directions formerly given, respecting the times of eating and quality of food, to be exactly complied with. The plan of gentle and encreasing exertion need scarcely ever be interrupted, since there are few days of our year, whose mornings are not sufficiently cool. It will confer the additional benefit of putting an end to that tendency to *take cold*, with which nervous people are so constantly plagued, and it will restore to the objects of sight that amenity, to those of taste that flavour, to those of thought that interest, to all nature that grace and life, which they were losing apace.

Dry, unkindly heats are so general a consequence of chills, that the nerves, from being too little irritable by warmth, at one minute or hour seem to become too much so the next. Either the chill or the heat is sometimes so

slight as to escape inattentive valetudinarians; but by more exact observation, the reality of both states will be ascertained.

A flush, however, may be easily brought on independently of previous coldness. In the account of the epileptic journalist, we have seen that a loose hair touching his ears, would occasion them to burn. This invalid further relates that at night he wore for prevention, a cap tied close behind his ears; besides keeping the hair very short cropped. He says that he was even obliged to be cautious of going into the open air immediately after shaving, as he was liable to a chill in consequence, and that going to bed with his beard at all grown sensibly heated him about the face and head. I have known the strokes of a blunt razor bring on a fit of violent heat about the same parts in nervous invalids with a tender skin; and this without any vexation on account of the badness of the instrument.

Persons, arrived at so diseased a pitch of delicacy, require to be most pitiably minute in their measures for preserving an equilibrium of temperature. Till the art of the physician has restored to the habit somewhat of its original power of resisting the action of the elements, their toilette may, without reproach, apparently equal that of Sardanapalus in effeminacy, and

their conduct be as scrupulous as that of MOLIERE'S *Malade imaginaire*, without affording just scope to ridicule. They should cover themselves so as to obviate every feeling of discomfort; they should warm their cloaths in cool weather, before changing; and in every house have license to accommodate their feelings without drawing down upon themselves that observation or officiousness, which to the weak and the sensitive are more distressing than any corporal infliction—when such accommodation implies nothing that need in the least disturb or offend others. But such is, at present, the horrible inhumanity of fashion, that great nervous invalids are often cut off from social intercourse, when they could enjoy themselves with the utmost advantage, and amuse others. For who, for instance, would dare to appear in well-dressed company, without one of those monstrous cravats, which with persons that regard only the rational ends of dress, have a title to rank in deformity with the monstrous craws, and perpetually occasion heats, throbbings, noises in the ears, headaches, and fits? Who could think of laying his feet in a foot-warmer out of the bosom of his own family, or applying his hand round a water-bottle to stop an impending chill? How would people that pique themselves on setting every body at their ease,



be shocked if they knew in what penance many of their feeble visitors are kept, and the injury they sustain, in allowing themselves certain trivial indulgences, because they cannot hope to escape a scene at the moment, or being unmercifully laughed at as soon as their back is turned. That Hannibal should not have suffered his soldiers to melt down their vigour in the delights of Capua is a maxim, whose propriety every body sees. And it is one which every body is ready to apply and extend. But the misfortune is that nobody will be at the pains to understand the opposite case. Hence defence against unpleasant sensations and forbearance from disproportionate exertion, though equally essential in their turn, are not tolerated to any thing like the same extent as exposure, labour, and abstinence are enjoined. Yet those who exact efforts from the debilitated may easily convince themselves, and the debilitated who submit to the exaction, will find *that pretension beyond ability always turns out ill in the long run; but that false pretenders to bodily ability will be exposed the most certainly of all, and the soonest and in the most miserable manner.\** Weak people therefore should not

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\* “ A slight change in the temperature of different parts  
 “ of the body was to me particularly dangerous. To main-

only confess to themselves, and, as far as necessary to others, their own weakness. They should also study the disposition both of their

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“tain an equality, there was room provided in my pocket  
“for a larger pair of socks, for covers for the wrist and  
“gloves, for sleeves, for a second handkerchief or for  
“paper to lay within the waistcoat before or behind, and  
“for a leathern cap when I step unobserved out of too  
“warm a room.” —“For entering or leaving my own  
“house, a vestibule, the inner door of which is much  
“open towards the next apartment, was particularly advantageous, as on my return I could have the necessary rest  
“without being hurried, and as I found here the gentle  
“transition to a warm temperature during the first minutes,  
“which otherwise were capable of weakening me for hours  
“together. In other people’s houses I made pretexts for  
“tarrying in the hall or elsewhere. — The coolness of the  
“morning air was far more trying to me than that of the  
“evening. The nervous invalid is prone to shivering.  
“He sensibly feels the difference between the bed he has  
“just left and the room; he cannot do worse than take a  
“walk before breakfast, even in the garden, with a view  
“to get braced.—It is the warm-blooded man in health,  
“that cooling may be useful, and it therefore may brace  
“such a person in effect. In washing, the wrist may be  
“dried sooner or oftener, or covered with a sock in the  
“mean time—whenever I wash more than my hands and  
“feet, the warm-water bottle stands close by, and is of  
“the greatest use to reanimate the hands.” After mentioning a vast number of other attentions, equally minute, the author concludes:—“It occurred to myself and to  
“many friends, whether all this care to avoid the least  
“tendency to an extreme of heat and cold might not get

whole system, and its particular parts, towards heat and cold, and conduct themselves accordingly. It is not always that they suffer from what they knowingly do or omit. Very frequently indeed, it is for want of being aware of the operation of the most obvious causes. Many invalids, particularly girls, have told me that their feet were not habitually cold, when upon examination the contrary appeared; so that I seldom take an invalid's word for this

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“ into a bad habit, and bring on an aggravation of my tenderness—thanks to the pressure of disease; it left no time for rejecting visible help at hand in favor of distant possibilities! And now I tranquillize myself with considering that nature has placed man among the animals, that in the temperate zone need much warmth, and that he only, who draws a great deal streaming from within, can dispense with addition from without. In avoiding every excess of heat as also the slightest chill, my measures aim only at the temperature, accompanied by the feeling nearest that of health, and must therefore be in the long run most conducive to it. Besides on a solid addition of strength, the extreme sensibility to a trifling excess of warm or cold goes off. Now I have not so much occasion to be scrupulous in avoiding them, and from this result, the apprehension that much warming for above two years must ruin the constitution, seems to be refuted with regard to mine, which had suffered in some degree from cold, before I went on this cautious plan——”

*Hist. of the 7 years' epilepsy.*

point. To know what external things are hurtful to them or otherwise, implies some talent for discovery ; and this however trifling, is far from being universal. Medical attendants therefore can hardly go too close in their enquiries or directions. The common observation that some convalescents will faint if they be set upright in bed, when they do not even feel excessively languid on continuing to recline, proves what a vast difference in the system, is produced by an apparently trifling change in external circumstances. And the facts, adduced in the course of this tract, will not only shew that the same thing holds of nervous invalids, but instruct them towards what points they ought to direct their precautions.

### *TREMOR AND STARTING.*

These are well known to exist in the slightest nameless variations of nervous affections, and indeed are among the principal characteristics of those affections. They attend hysteria and catalepsy ; and are no less observed in epilepsy. Trembling is often brought on between the paroxysms, and sometimes immediately precedes the insensibility and convulsions. Of this I have an



instance in a patient at present under my care. The causes which bring it on are sometimes almost inconceivably trivial.—Whatever occasions the slightest uncomfortable emotion is sufficient. “My writing,” says the frequently quoted epileptic patient, “shews by its steady or zigzag strokes, how “it is with the inward man.”—“One day,” he relates, “I had dozed a little after a considerable morning walk. I then paced “about with a head rather confused, and “was composing myself at my leisure. My “back happened to be turned towards the “outer chamber, when somebody entered “quietly, purely with the intention to look “after me, and addressed me at once in a “loud voice. I was struck all on a heap. “I felt all the nerves in my body, particularly those in my head, shaken. A little “nausea came on, but was removed by “taking some sustenance. After this shock, “my pulse beat very slowly and feebly, and “I felt weak, for a number of hours.”

These facts agree with the others in shewing that the same disposition runs through the variety of nervous complaints. By what particular means these symptoms are to be prevented or mitigated, it is not so easy to say as it is of some others. Tranquillity of

mind and keeping out of the way of disagreeable impulses, are means equally obvious to recommend, and difficult to practise. The ear is the sense through which most shocks reach the nerves. Perhaps at those times, when they are most capable of withstanding noises, it might be of great service to resort to some mechanical employment. The hum of a lathe we turn ourselves, and the strokes of a hammer in one's own hand, are less offensive; and they will enable us better to bear the same sounds from another quarter\*.

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\* “ What am I to do when the ear, the most sensible of  
 “ all my organs, cannot avoid the impression from a rattling carriage, the piercing cry of an infant, and other  
 “ sharp discords? To wear cotton constantly in the ears  
 “ stupifies, and is injurious in other ways besides. I felt  
 “ the same stupefaction from stopping the ear with my  
 “ finger at the moment, and if I withdrew it a little too  
 “ soon, I was still more cruelly affected — — — It was  
 “ not till the second year of my recovery that I accidentally  
 “ noticed (a thing others may be well aware of) that the  
 “ raising my own voice was the speediest, surest, and easiest  
 “ security against the too violent penetration of other  
 “ sounds. A sort of song of my own, occasions, in most  
 “ cases, a sufficient reaction — — — The nervous invalid  
 “ most safely enjoys a concert in the next room.—He  
 “ should make no scruple to request his acquaintance to  
 “ remove canary-birds out of the apartment for visitors.”  
 (*Hist. of 7 years' epilepsy*). Whether from custom, or

A dress which makes an equal and gentle pressure upon the limbs, as laced stockings, and laced drawers suspended from the shoulders, will be sometimes found of very considerable use in restraining tremors.—It is worth while to observe, that when the brain is hurt or inflamed, there arise tremors, twitchings, and convulsions, which seem only different degrees of the same affection. This fact shews the propriety of considering them as nervous affections.

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from the protective power of agreeable associations, nervous bird-fancying ladies experience no distress at home, while their friends, who are not at all greater invalids, feel their whole frame harrowed by the din, proceeding from the suspended cages. I know no protection against this annoyance, except carrying some loud instrument and playing it off against the birds.—No in-doors noise is so bad as that of birds; but habitual loud talkers often make nervous valetudinarians ill.

“ Perfect stillness for a quarter of an hour is the best  
“ remedy for a violent attack on the ear. If the stillness lasts  
“ too long, I feel rather stunned, perhaps because the  
“ thoughts ramble with less restraint; or, if I am reading,  
“ the nerves are too uniformly affected. One may be so  
“ much out of use, that the sudden buzz of a fly, and still  
“ more, a return to society, shall be painful to the ear.  
“ Let the nervous invalid, therefore, take care how he  
“ carries stillness too far.—By this physical cause, the  
“ hypochondriasis of many a recluse may be aggravated.”  
(*History*).

*VOCAL SOUNDS.*

During the insensibility that intervenes between the reveries of somnambulists, and that which is common in hysteria, indistinct efforts to speak are not unfrequently perceived. They are exactly of the same kind, as a great deal of what is called talking in one's sleep; and this is just what might be expected in complaints so similar in their nature. That this happens in complicated catalepsy is evident from the case of the boy, related above, whose rapid mutterings a number of people heard in the patient's room at the Pneumatic Institution, while his large muscles were rigid. But this happens no less in epilepsy. The following is a passage in the account of the seven years' epileptic patient, who was surrounded by people of intelligence, anxious to watch him narrowly in proportion to his own wishes for information respecting himself. "I sunk  
" backwards insensible after a scream,  
" stretched out my limbs, and threw my  
" head backwards with upturned eyes. The  
" mouth foamed, and I lay for some minutes with my thumbs turned inwards,  
" and had feeble convulsions. Afterwards, I  
" threw my arms back with force, and they



“ were agitated more than my legs, while  
“ the trunk and head made efforts to raise  
“ themselves. This second act lasted some  
“ minutes, and during its continuance, there  
“ was heard *a muttering, which came near to*  
“ *the natural voice, calling for help*, though it  
“ was not distinct enough to be ascertained.  
“ After this second act, I closed my eyes ;  
“ the thumbs ceased to be drawn in, and the  
“ quiet insensibility (fainting, *sopor*) during  
“ which I hem a great deal, continued.”

The scream, here mentioned, is a very frequent symptom at the beginning of a fit. It seems to me to be merely a convulsion of the organs of the voice and of those concerned in respiration, not depending upon pain. The writer, from whom the preceding quotation is taken, repeatedly carried his attention far enough into the paroxysm to be sensible of the scream uttered by himself, but had no sensation of pain, to which he could impute it.—Whether any pain be felt during the epileptic paroxysm, we have no direct means of knowing; nor is it connected with my present design to enquire, unless the probability of its existence may operate as an inducement to greater care in avoiding the predisposing and occasional causes of this disease. The negative can scarcely be asserted

of all fits, even though we should not believe the symptoms to be efforts to relieve pain. But it is with the state of the soul in the fit as after death. No one has come back to make us a report concerning the one, nor has any one recalled the ideas he has had during the seizure, as sometimes happens with regard to a dream, which on awaking we know we have had, though we cannot bring to mind the particulars, till some associated idea calls them up all at once.

### *DISUNION or WEAKENING of TRAINS.*

This is general in all nervous complaints. The expression that a *person is fluttered*, means neither more nor less than that his thoughts and actions do not proceed with their usual regularity. Improvement of the understanding depends upon the accession of new ideas or upon fresh associations. Nervous invalids not only find the bond of union weakened when they suffer from their peculiar symptoms, but also during the intervals. The tremulous and over-sensible, the epileptic, the hysterical, the hypochondriac, very generally agree in complaining of a decrease of memory. One of the most

judicious medical practitioners I have met with, whom hypochondriasis has drawn for a time from the exercise of his profession in a distant country, has this day assured me that his faculty of recollection, originally powerful, has greatly declined upon the whole, and at times has been such that he could not recall all his own name.

Fatuity, imbecillity, or idiotism, is principally characterized by the want of the power of association, or by loss of memory. The long continuance of nervous disorders always impairs this faculty. When the accessions are frequent and severe, it is often nearly destroyed altogether. In children it is weaker, and therefore more destructible. Accordingly, we frequently find very intelligent infants rendered idiots for life by convulsive or epileptic fits. Since the first part of this essay was written, there has been brought to me from one of the neighbouring villages a female child, eight years old, who being thrown into convulsions at sixteen months, during dentition, probably for want of having her gums lanced, became and has continued idiotic, with nightly paroxysms of epilepsy.—This is common; but it is most important to my readers to have what is

most common in the origin of different complaints, distinctly exemplified.—“ How  
 “ easily” says the describer of his own epilepsy, “ might I have been rendered an  
 “ idiot, had the complaint lasted longer,—as  
 “ I judge by my feelings, and by the more  
 “ distinct indications that occurred in the  
 “ long-continued stupors. By dint of de-  
 “ creasing memory, and increasing imbecil-  
 “ lity of nerves, the lucid intervals must  
 “ have become shorter and shorter; conse-  
 “ quently also, the operations of the intel-  
 “ lect, which cannot go on without the help  
 “ of organs, at least here below.—How little  
 “ is the spectator capable of pronouncing  
 “ upon the internal worthlessness of any  
 “ human mind !”

Other nervous complaints no less bring on mental incapacity of every degree—sometimes blank idiotism, sometimes idiotism with intervening accessions of frenzy. Of the last variety, there stands upon record no example, superior in celebrity to that of Dr. JONATHAN SWIFT. Deafness, giddiness, want of vigour in the stomach, lowness of spirits are represented as ripening in this mighty genius, by just gradation, into fatuity blended with frenzy. His numerous



biographers have laboured to develop the origin of ailments, which deprived his riper years of comfort, and rendered his closing scenes so humiliating. But it is with SWIFT as with illustrious men in general. We know the dates and occasions of their prominent actions. The effects also of their writings, speeches, and victories are amply detailed. But the man himself is hid in a cloud behind all this bustle and splendour: and of his prevailing inward state, we remain as ignorant as of that of an inhabitant of the planet SATURN.

Medical calculation may perhaps supply, to a considerable extent, the deficiency of positive information concerning the Dean of St. Patrick's. There is one hypothesis, and I think but one, which will at once unfold the nature of his ailment, and account for the more striking peculiarities of his disposition. This hypothesis regards his personal condition—that clue to the whole tenour of a man's conduct in familiar life, and often, where well followed, to the spirit of his overt actions likewise.

Extraordinary talents imply an uncommon portion of sensibility. Nor were the early studies of SWIFT of a nature to dry up the fountains of feeling, but rather to make them

gush out in more abundant streams.\* What then would be among the principal products of a soil, constituted and manured, if I so speak, like that of his mind? Is it credible that that appetite, of which the autumn of his days affords indications, that would be excessively ridiculous, had they stopped short of guilt, should not have sprung up, in its natural season, vigorous and impatient for gratification?

It is needless to expatiate upon the unfavourable circumstances, in which young SWIFT was placed just when he was the most likely to be assailed by the solicitations of passion. I do not conceive that any one can read, without commiseration, of his wretched state of desertion, or of his college solitude, at that dangerous period, without alarm. Who, that is capable of entering into the situation of young men of deep sensibility, shut out in any manner from society, and bereaved of the amusements of their age, can be at a loss in imagining to what

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\* “ ——— In such a state, he could not bear to give the  
 “ necessary application to some of the more dry parts of the  
 “ academic studies, for which he had indeed habitually no  
 “ great relish, but passed his time chiefly in reading books  
 “ of history and poetry.” (*Life by Sheridan.*)

means of assuaging desire they may be reduced, and what kinds of solace they may seek under the gloom of discouragement, and in a state of rejection by the world? Every one, whose sympathy and reason are not bound down by prejudice or superstition, must acknowledge that the errors, provoked by such tantalizing misery, and committed with perfect unconsciousness of their effects, are the objects of pity, and by no means, of censure.

The accounts we have of SWIFT bear that it was some time between the age of twenty and thirty that he began to be troubled with that giddiness (attended by coldness or weakness of stomach) from which he was never afterwards long free. Now, these are the very symptoms which a host of writers agree in representing as the most common consequences of the cause supposed — That intense application should confirm the mischief, when the organs of thought and digestion were radically vitiated, is just what ought to be expected: and that SWIFT imputed his complaints to a surfeit of fruit, is of small account. He could scarcely conceal them altogether. He must say something. It is not perhaps impossible that he should have misjudged his own case.

SWIFT's whole conduct in his private rela-

tions so entirely bespeaks a debilitated man, and one too, debilitated by excess, that fiction, to be consistent, must make a similar character act upon a similar plan. Nay, a suspicion of his particular situation has not escaped his biographers, though they do not trace it back to its occasion and date.

Every body recollects the prediction of his being destined to die first at top, made in company with Dr. YOUNG. A striking emblem in nature might easily force out the dark expression of a secret, which had long lain heavy at his heart, but which was of such a nature, that his haughty spirit could not submit to confide it to any mortal ear. In his *Gulliver*, where his genius bursts out with such transcendant splendour, it still shines as if surrounded by a halo of malignant dissatisfaction. There is something in different parts of that work, from which the heart recoils. You would not accept its fame along with the feelings of its author. Cut off from the participation of pleasure, he might serve, envy, and hate his species, till advancing years, perpetually irritating his secret sufferings, plunged him into the madness of misanthropy.\* Strong evidence,

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\* Mrs. WHITEWAY would sometimes steal a look at him, but did not dare to venture into his sight. His rage became absolute madness. *Sheridan*.



(I think as strong as circumstantial evidence can be,) is to be found in the delight he takes in images, "physically impure"—in the sentiments he professed at different times regarding marriage, and above all, in his behaviour towards several women, after he had attained the fullness of literary glory.

/ In whatever manner it may be that debauchery sullies the imagination, the thing is certain. We know that none so frequently shew a perverted taste as worn out debauchees. It would seem as if, in spite for the lost power of enjoyment, they vilified the things in which they once most delighted. Our travellers in the East are always taken for physicians. They relate, that those owners of Seraglios, who apply to them most eagerly for restoratives, are most eager to have beautiful women in their possession. The history of many faded gallants in our own country is, I believe, full of similar occurrences. But never creature appears to have hovered with more lingering fondness about the honey it could not sip. A dignitary of the church could not brave public opinion, as many laymen of fashion do. But though a kept mistress was out of the question, Swift's intercourse with women figures full as conspicuously in his life as his intercourse with

ministers. His love, no doubt, was platonic; and perhaps his last friendly biographer need not have laboured that point so anxiously. But what, I pray, according to this very biographer and the internal evidence of his story, could it be else in the nature of things? SWIFT certainly did not attach himself in the manner of a person, intent only upon rationality in those women, with whom he became intimate. His eye appears to have guided him in great measure, nor was he at all less intent upon personal attractions than a youth, just beginning to feel the power of the other sex. Of his three mistresses, two at least had to boast of distinguished charms, (I do not know that the other was in any way deficient) and it is observable enough that the ardour of his attachment was in proportion to their youth and beauty. His passion for Miss VANHOMRIGH stands confest by himself in the most explicit terms. And though of himself and Mrs. JOHNSON he say—

His conduct might have made him styled  
A father, and the nymph his child.

the assertion stands contradicted by what he calls *the little language*, “the playful sallies of his undisguised heart, his expres-

sions of tenderness and cordial affection:" all of which vanish from the journal, the moment his affection for STELLA is superseded by fondness for the brighter and more youthful VANESSA. That the ladies themselves looked towards ordinary, solid, matrimonial love is too shockingly evinced by the shortened life of one, and the embittered death of the other. Miss WARYNG, the first object of his adoration, not only entertained the same expectation, but in her the expectation was warranted by SWIFT himself, as is manifest from that memorable letter, in which he adopts the unworthy artifice of frightening her out of the idea of becoming his wife. (*Sheridan*, p. 278.).\* Wherever therefore actions shall outweigh professions, will it be believed that SWIFT was "*naturally of a temperate constitution with regard to women*," however he may acknowledge it himself? As he was afterwards so fond of keeping the embers alive, is it not infinitely more probable that the flame once burned fiercely, than "that by the constant habit

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\* "The other thing you would know, is whether this change of style be owing to the thoughts of a new mistress. I declare upon the word of a christian and a gentleman, it is not; neither had I ever thoughts of being married to any other person but yourself."

“ of suppressing his desires, he at last lost  
 “ the power of gratifying them.” (*Sheridan.*)  
 That he should have engaged the affection  
 of three women (and of two by direct ad-  
 dresses) and that he should have escaped  
 from one by a subterfuge, shaken off another  
 by murderous violence, and dropped the  
 third at the last *Amen* of the marriage cere-  
 mony, forms a difficulty in his conduct,  
 which scarcely admits of any but a physical  
 solution. Two are offered; and it will be  
 difficult, I think, not to prefer that which is  
 countenanced by analogy, while it coincides  
 with the indisputable warmth of his temper-  
 ament at one period of his life, fully ac-  
 counts for the nature of his distressing com-  
 plaints, and more naturally explains, why he  
 entered the lists of love with all the flourish  
 of a dauntless champion, but when he had  
 proceeded to a certain point, threw down his  
 arms, and turned his back like a recreant.  
 I deem it satisfactory that something similar  
 to my opinion had occurred to my prede-  
 cessors, and suppose nobody will find it an  
 objection that they, not being professional  
 men, failed to develope the mystery fully.

That the understanding of SWIFT did not  
 sooner tumble into ruins, is nothing extra-  
 ordinary. What I have formerly called *the*  
*faculty of pleasurable sensation* suffers soonest.



The intellect often declines slowly, as we know from ascertained and even from avowed cases, which I suppose similar. And if reciprocity be in proportion to the recipient, what wonder that one of the sturdiest of mortal minds should offer a long resistance to the agency of destructive powers?

I am aware that this investigation of a malady, which has excited much curiosity among mankind, stands liable to reproach as an attempt to traduce the character of the patient. But I do not see why its nature should now for the first time be deemed an unfit object of enquiry; and the enquiry, if entered upon at all, doubtless ought to proceed frankly and without flinching from any consideration that may elucidate the problem. Nor can any thing done in ignorance affix a moral stain. SWIFT therefore will emerge pure from the suspicions of the dispassionate pathological reasoner, though they be ever so justly founded. It is what his friends avow, and what I deem strongest in proof of my opinion, that stamps him with indelible infamy—namely, his readiness to kindle, in the female bosom, hopes, which he never intended to gratify. To those who find the evidence I have brought together as conclusive as circumstances will admit, the case of this great man will afford posterity more than

one useful lesson. It will teach how essential it is to check even slight-seeming nervous disorders in their commencement; and how such unwariness in youth, as a little information will correct, may proceed through protracted misery up to criminality, idiocy and madness.

Temporary palsy is brought on indifferently by epilepsy, hysteria, and anomalous nervous complaints. Epilepsy is frequently followed by compleat palsy or apoplexy. And in affections of inferior violence, the propensity to partial and temporary palsy is likewise aggravated into apoplexy, succeeded by death or loss of one side, by causes that would produce no more perhaps than a passing tremor in firmer constitutions. The causes I mean are such as great alarm, unusual exertion, or mistaken medical treatment. Instances of the former kind abound in a variety of medical authors. Of the latter, as I have observed that the sense of distention or fulness in nervous women, often excites a dangerous desire of being let blood, I shall produce from Dr. WHYTT the following distinct example. A delicate or nervous girl having chilled herself at the return of the monthly period, was next morning, at four o'clock, seized with stupor and difficulty of speaking and moving. She was soon

after blooded and blistered. At eight o'clock she could neither speak nor swallow, had a hiccup, and was pale and cold, though her pulse and breathing were natural. About half after ten she began to breathe hard, and with a snorting noise. Besides taking medicines, she was now blooded again, and a third time in the afternoon, and died at ten o'clock, 18 hours after her first seizure. —This unmerciful use of the lancet proceeded, no doubt, from the groundless idea of the constant necessity of blood-letting in apoplexy—a practice sometimes fatal, and always perhaps of disputable utility. In the present case, an inability, which seems to have been merely one of those tendencies to palsy, that constantly come and go in the nervous affections of young people, was thus dreadfully aggravated by a treatment, exactly the reverse of what would have been proper. Never had mismanagement a more visible effect. The more the lancet was used, the nearer did the symptoms approach to that fatal apoplexy, which the third bleeding so speedily brought on. We clearly see diminished voluntary power, snorting or stertorous respiration, and death, following each other in just succession.

*OTHER COMMON SYMPTOMS.*

Some cases of epilepsy are distinguished by a remarkable feeling called *aura epileptica*. A thrilling begins in some distant part, as in one of the extremities, and proceeds gradually along, till it reaches the head, when insensibility and convulsions begin. This thrilling, however, is far from taking place always; indeed, the greater number of epileptics are free from it. Something pretty similar occurs in other nervous complaints. A feeling shall commence in the shoulder, rise up to the head, and be immediately followed by nervous headache. Again, a thrilling shall take place in one of the feet, ascend to the crown of the head, and pass down to the eyes, and produce only dimness or *obnubilation* of sight. These wandering sensations, as of a breeze passing along parts of the body, may have procured to nervous affections the name of *vapours*. In epilepsy, where the causes of these *auræ* or ascending vapours have been most industriously sought, they have been found to begin from some sudden injury or slow disorganization, and are well known to be sometimes cured by placing an issue in their course, as I have lately seen in a case of epilepsy, arising from an accidental hurt.



Sudden shifting pains, as well as thrills, are symptoms very general through this class of complaints. The sensitive organs being injured, we must expect the patients to be subject to variety of comfortless and painful sensations.

The stomach very universally suffers from flatulence, mawkishness, nausea, retchings, vomitings of viscid phlegm or bile. It is common for epileptics to be seized with sickness before and after the paroxysms. In hysteria, the stomach is never right, and violent efforts to discharge its contents are familiarly observed. Nervous headache is apt to terminate in ejection of bile: but is more frequently accompanied only by loathing of food or retching.

Periodical returns are not uncommon in nervous complaints; but they do not belong to every case of every species: nor can they be affirmed to belong to one species more than to another. We sometimes see the greatest regularity in the coming on of epileptic and hysteric fits. Nervous headaches have likewise frequently a period as exact as agues.

Frequent calls for food from a sense of internal sinking, not from genuine hunger, begin with the first origin of nervous complaints, and accompany them through their

whole progress to the highest pitch of exacerbation. When you hear a person say that he always grows faint unless he eats something in the morning before dinner, and that after rising he cannot bear to be a moment without his breakfast, you seldom need be at a loss to divine the nature of his complaint. His nerves will have been shaken by some power that has more directly acted upon them, or have suffered in an indirect manner. These calls of weakness should not only be obeyed, but anticipated. Instead, for instance, of risking faintness before breakfast, something should be taken in bed. But enough has been formerly said on the care, necessary to supply the puny with sustenance in time.

### OCCASIONAL CAUSES OF FITS.

The grand moral, deducible from the preceding too long and uniform discourse, is *the necessity of avoiding all predisposing causes of nervous disorders*. Many of these have been above enumerated with such an ample commentary, that I must despair of writing any thing useful to those, whom I have left uninstructed upon this head. I could make another essay not less extensive out of the *exciting* or *occasional* causes; and in so doing I should but follow respectable examples. But I own that I consider

the topic as comparatively very unimportant, and I have in great measure anticipated it. Indeed, if the predisposing causes have operated with their usual effect, I am afraid that in this jarring and boisterous world, the poor sensitive human plant will be utterly at a loss to find an asylum. Wherever he retires, the occasional causes of his paroxysms, be they epileptic, hysterical, *cephalalgic*, or anomalous, will pursue and hunt him out. Earthquakes, volcanic eruptions, hurricanes, revolutions, mobs, he may have the good fortune, all his life, to escape. But he will find the whole cultivated part of the earth infested with heats, frosts, storms, thunder-claps, door-claps, creaking wheels, jarring windows, squeaking pigs, cackling geese, crowing cocks, and innumerable disorders besides in the apparatus of polished society. In spite of injunctions, the footman will let fall a tea spoon, or the cook will keep back dinner too late. A sister will send about the tea too hot or too strong. A child, forgetful in its sport, will utter a note too loud. Husbands will be inadvertent or ill natured, and contradictions will come to throw the whole frame into tremors, if not into convulsions.\*

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\* J'ai vu, comme M. Lorry, une femme si mobile, que la plus légère contradiction la faisoit évanouir; cet habile médecin cite le cas effrayant d'une femme honnête, qui ayant

If an invalid could entertain the desperate idea of flying into a desert from the possibility of these town and country plagues, in the desert, no doubt, others as terrible would meet him. It is the first concern, therefore, of a valetudinarian with too exquisite sensibility to seek—not how he may shun, but—how he may become once more enabled to encounter, the annoyances of life. This is only, in other words, remanding him to the care of the sons of Esculapius.

Till their operations shall have produced the desired effect, it will indisputably be the interest of the patient to suppress every species of vehement emotion. I have already explained how foolhardy I hold the least unnecessary exposure to the physical exciting causes of nervous paroxysms. Of the moral causes in particular, I know not that any thing can be said beyond what must suggest itself to the plainest common sense ; except perhaps a few words on the subject of fear.

If you ask people what threw them first into fits, they will answer, in a great majority of instances, that it was something, by which they were terrified. In a number of patients from

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paru en public dans un habillement peu convenable, fut si irritée, par les propos indecens, que cet habillement lui attira de la part des jeunes libertens, qu'elle tomba morte.—

(Tissot.)



humbler life, who have applied to me in succession, I have observed that there has not occurred any exception to this rule. One girl fell down convulsed on taking up a toad along with a pail of water; another from seeing a child attack his fellow with a knife; a third from being where a person was brought home lifeless out of the water; a fourth from passing by, as an epileptic person was lying, black in the face and foaming, in the street, a fifth from a black man's attempting to kiss her, and so on to infinity. A spider, an earwig, a frog, or an ant, crawling in the sugar bason, will often do just as much for the female members of a polite circle.

How well therefore has natural history been recommended for one of our earliest studies! and this, as far as it is most useful, can always be carried on by means of the objects themselves, which will exclude books any farther than for reference. Children always adopt the associations of those about them. I have known a timid mother, by well-acted horror, fill several children with insurmountable dread of crossing even ROWNHAM ferry. Conversely, whatever parent can but examine our insects and reptiles with interest, may be sure that it will never be in the power of the most loathsome among them to throw his family into fits.

But disciplining the mind against fear can be easily carried a great deal further. In a

variety of cases, children should be made to act, over and over again, the proper parts in dangerous emergencies of common life. *Shew me what you would do, if your clothes were on fire ; or if you saw a person in that situation.— In a case of apparent death from drowning, let me see how you would go about to restore animation.* These and other processes, with the necessary explanations, should be gone through with some substitute object ; and the mind, thus habituated, would be nearly terror-proof.

In fresh cases, analogy would point out the line of safest or most serviceable conduct ; and it is clear, from the preceding ample explanations, that the hurry of thought, vertigo, and confusion of brain, which suspend consciousness, while the muscles are irritated into preternatural actions (convulsive or spasmodic) could not by any possible means come on. Even the coolly thinking over any new motion, as holding the fingers apart two and two, though less efficacious than practice, will render it more easy : and the maxim of Horace

Rem ante provisam verba non invita sequuntur—

will bear being extended to the consideration of such measures as the urgency of distress may call for. A whole book might easily

be written on the art of hardening the mind against terrific impressions.—But I am too far exceeding my bounds, and I hope thus much will be sufficient. The only concern of prudence will be, in such exercises not to excite to wanton mischievousness.

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Having this month tried the patience of my portion of the public by an unprecedented stretch of dissertation, I feel anxious that we should part in good humour at the end. I know not any thing more likely to contribute to my purpose, than a clear idea of the most desirable state of nerves. I choose an example, as thinking my lady and lady-minded male readers, who hate metaphysics\*, will prefer an example to description. I dare say, however, they would puzzle long before guessing what pattern I mean to propose to them. But it is not my way to keep people in suspense. So, at a word, it is the

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\* I hate metaphysics too; that is, the school-learning of old and modern Kantianism. But the knowledge of the human understanding, resulting from the most refined and interesting species of observation, and capable of useful application, I prefer to all other kinds of knowledge. Every day I lament not being a greater proficient in it; but am afraid this is just what the readers abovementioned hate as metaphysics.

SAVAGE of AVEYRON.—This savage of Aveyron, if his history be accurate, enjoyed, in the happy pitch, to which his nerves were tuned, such an advantage, that I know not if we, his civilized fellow-tenants of this terraqueous globe, can produce any six equal to it. The advantage was this. His nerves were alive to pleasurable, and dead to painful sensations. He fired at the cracking of a nut. I need not tell any body, who has ever tasted the sweetness of a kernel, what associations the sound would excite in this denizen of the forests, with his fresh, unpalled palate. But if you discharged a pistol close under his nose, he continued as grave as my lord-chancellor on the woolsack. The crash of the storm had too often passed over his head without injury, for him to mind loud and sudden sounds; and perhaps he would have stood the discharge of a whole battery without emotion. At least, had the house tumbled about his ears, before he had been subjected to Dr. ITARD's humanizing superintendance, I will answer for it that it would have been to be said of him as justly as of the virtuous sage of the Roman poet—

*Impavidum ferient ruinæ.*

But we need not recur to this singular instance. Examples to be met with in every street and



village, are sufficient to convince all who will give them consideration, that the opulent people of this country commonly render themselves wretched by pursuing *well-being* upon a false plan. The English are more remarkable than any other nation on the globe for the accumulation of *comforts*, and, indeed, unhappily we pique ourselves upon the distinction. I am not going to advise any one to discard his or her comforts all at once. I would only open a course of reflection, by which they may satisfy themselves that the reliance they place on externals is vain, and that those who have most comforts about them, are commonly the most comfortless of all mortals.

We have seen that, in the cold winters of Holland, people live with very little fire, and in apartments, into which the wind has free admittance. The people of our country, in similar circumstances, would shrink from the idea of such habitations, and indeed with good reason, as we should most certainly perish in them.—We know, however, that the Dutch suffer less from temperature than ourselves in their health, and therefore also in their feelings, when its effects do not quite bring them down to the sick bed. Were a traveller to explore the whole earth for the

sake of comparing the feelings of its inhabitants, I will venture to predict that he will find the Hottentot in his grease, the Abyssinian with the reeking intestines of an ox wound round his body, the Kamtschadale in his underground den amid his putrid fish, the wild Irishman beside his pigs in his cabin, each infinitely better off, as to their internal condition, than the gentry of Great Britain with all their care about cleanliness, and all their contrivances for protection. I do not, like Rousseau, advise that we should resort to filth and barbarity in order to avoid being incommoded and invalided, but, in the name of common sense, let us understand that the going of the clock depends neither upon the paint of its cover, nor on the brightness of its face, but upon the perfection of each piece in its interior, and the nice correspondence in the movements of all !

END OF ESSAY IX.

*ESSAYS*  
ON  
THE MEANS  
OF  
AVOIDING  
HABITUAL SICKLINESS,  
AND  
PREMATURE MORTALITY.

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*ESSAY TENTH.*

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Vol. III.

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*OF IMAGINATION ALL COMPACT.*



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ESSAY  
OF SOME OF  
THE DISORDERS,  
COMMONLY CALLED  
NERVOUS.

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PART II.  
CONTAINING  
OBSERVATIONS  
ON  
INSANITY:

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*Insanity more thought of in England than  
elsewhere, and why.*

THE difficulties, belonging to the subject of the present Essay, are understood far beyond the limits of the medical profession; and it must be confessed that the ill success of those, by whom it has heretofore been treated, is enough to damp the spirit of every new enquirer. Nevertheless, considerations may be stated,

which may well incite to further endeavours. There is reason to believe, that the writer, who should be happy enough to unfold some of its intricacies, would inspire a great interest among his countrymen, and that, by a proper application of his principles, he might render them a most essential service.

Foreigners, who pay attention to the turn of thought which predominates in England, are struck by the frequency of our recurrence to the idea of lunacy, and by the stress we lay upon it as the last of human calamities. Some who have published observations upon our national peculiarities, drawing, I fancy, too general an inference from particular examples, describe it as one of our customs to carry young people to Bedlam; in hopes that the sight of the objects immured within the walls of that hospital, may create a horror of the excesses that tend to reduce our nature to so humiliating a condition.

Besides the belief that insanity is a more common affliction here than in other countries, there are some remarkable circumstances in our literature which have an evident tendency to fix the imagination, at the time when it is most open to impressions, upon mental derangement. SHAKESPEARE, a name that always recalls to his intelligent readers the first of

poets, and the most penetrating of observers, has succeeded, by his happy use of madness as machinery, in carrying terror and compassion to a height, which they cannot perhaps be made to reach by any other means. In his lighter pieces, those who from their denomination of *fools*, must be supposed originally destitute of an average portion of understanding, are made the perpetual vehicles of remarks, whose shrewdness puts to shame the acumen of men, the most remote from folly. But it is his desponding-mad Ophelia, his raving-mad Lear, his jealous-mad Othello, his melancholy Jacques, his crafty-mad Hamlet, that awe and attach on the first exhibition, and bind the heart in a never-ceasing spell. It is in these characters, where the equilibrium of the faculties is destroyed, that he displays the force of his imagination along with that of his reason. Nor would it have been possible for people in their sober senses to have *let out* so much fancy and so much philosophy together, without seeming unnatural—even if any mortal except the delineator of these characters could have combined so much in his secret meditations.\*

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\* “There is one circumstance altogether peculiar to Shakespeare—the singular fanciful cast of philosophy, in which he is so fond of losing himself. What distinguishes him beyond all the poets of any country previous to the

We need therefore, know nothing further, than the powerful dominion which Shakespeare exercises over our national feelings. We should have a right to conclude from this fact alone, that no subject would more deeply engage our thoughts than the one which he has addressed in this manner to our feelings. But he has been seconded with an ability beyond all reasonable expectation. Isabella, Alicia, and Clementina still display their terrible graces

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formation of the national taste, is the depth and riches of his moral and political reflections. He does not always introduce these, when alone they are free from censure in dramatic writings—*i. e.* when they coincide with the progress of the action, suit the character of the speakers, and are explicable from their situation. He seems at times to come forward in *propria personâ*, and to propound his own insight into affairs and his knowledge of mankind under borrowed names. But this philosophy of his has always something richly fancied and enthusiastic, and connects best with strange and grotesque images. The more his imagination is exalted, the more profoundly he thinks and with the better success does he philosophize. No wonder therefore he assigns to his *dramatis personæ* an overstrained fancy, a character inclined to enthusiasm, a singular way of seeing things—no wonder he is so fond of placing them in the twilight between sanity and insanity—half beside themselves, half in their right wits. In displaying this peculiar state of mind of his heroes, he is at liberty to let loose the reins of his own imagination, and to utter, without reserve, all his own eccentric genius suggests.”——*Garre's Essays*, ii. 441.



with effect: and there are authors of later fictions, who would not have ventured forward with their lunatics or would not have succeeded with them so well, had not Shakespeare done for this class of characters what Homer did for the heroes of the Trojan war—put them in possession of the good-will of the public.

### *MORE OBVIOUS APPEARANCES.*

In order to make an advance towards the knowledge of causes, I propose to present a concise view of the more usual phænomena of insanity, and then to endeavour to trace the chief particulars, by which it is distinguished from the sound state of intellect.

An uninformed observer, who should pass a considerable number of lunatics in review, would be struck no less by the difference between one of these unfortunate persons and another, than by the difference between them all and those, who are in full possession of themselves. At the time the disorder most strongly manifested itself, he would find a part storming with a degree of fury unknown in ordinary life, and the rest wrapped up in tenfold gloom. This observation appears to have given rise to the earliest, and what is still the usual, distribution of insanity into two species, though it was soon

found impossible to adhere to it rigidly. Of these two species, one has obtained the name of MANIA, the other of MELANCHOLIA; the denomination, in the latter case, being taken from the predominance of a certain imaginary *black bile* in the constitution, but the idea of the class from the silence or dejection of the party affected.

The melancholy-mad will sometimes continue for days and weeks looking stedfastly at the same spot or with their eyes closed, without taking notice of any thing, or making any reply to questions. Nor can they often be stirred from the place or prevailed upon to take sustenance without direct force. They would be supposed by a looker-on, not acquainted with cases so much in the extreme, to be the most torpid and insensible of all mortals. And indeed I have sometimes found this opinion to be so deeply rooted in the minds of the friends of melancholic patients that the fullest force of evidence to the contrary could not shake it.

It is true the usual stimuli frequently produce none of their usual effects. The melancholy man will frequently bear the extremity of heat and of cold without complaining at least, if not without suffering. A four-fold dose of medicine is commonly enough observed to fail alto-

gether in its effect upon him. He will look stedfastly in the face of the unclouded sun. He has a far greater chance of escaping any prevailing epidemic complaint; contagion, or the seasons having often less power to induce a change in the movements of his system.

But at other times appearances the most opposite to this seeming insensibility are to be observed. The patient trembles, shudders and starts without any obvious reason. His tears burst forth without any adequate exciting cause. His sleep is almost never composed; he often shews a degree of wildness as he is falling asleep; suddenly awakes disturbed; is haunted with the most terrific dreams; partakes with the rest of the nervous in the inconvenience of finding himself more harrassed in the morning than at bed-time.

When not totally absorbed, he complains of the whole train of uneasinesses, that are general where the sensibility is in excess, and which have been copiously described under the article, hypochondriasis. He is subject to twitchings or startings of the muscles, to obstinate contractions of the sphincters of the bladder and rectum, to spasms in the organs of deglutition. The head suffers from dreadful partial pains, particularly the hinder part; and it is sometimes a burning, sometimes cold, sometimes pressure

or distension. There are pains, oppressions, anxieties also referred to the chest, heart, stomach and bowels, which have exactly the hypochondriacal character.

This analogy holds, in a most remarkable manner, of the natural functions. When the disorder has not risen to that pitch of violence, which concentrates the patient entirely within himself, the appetite shall be preternaturally voracious; and with an appetite no way immoderate, there shall exist heart-burn and a load at the stomach, with unsavoury, sour or rancid eructations. An obstinate sluggishness of the bowels attends melancholia as well as hypochondriasis; and the most drastic purgatives are at least as often unavailing.—There is an equal degree of hardness and distension of the body, with very troublesome flatulence. The skin is habitually dry; but in both complaints, a cold, clammy perspiration will burst forth by fits, particularly about the head, neck and breast; and other small irregularities of the secretory organs, as of the salivary glands and kidneys, will take place equally in one and the other.

The mutability, so remarkable in nervous complaints, and which has been described in the former part of this Essay, occurs no less in melancholy. It changes into epilepsy, catalepsy, into partial palsy and apoplexy. When



it has continued for any considerable length of time, the state of the system is seen to undergo a compleat change. An atrophy, more or less compleat, supervenes. Obstinate jaundice, and often what from the depth of the bile, is termed the *black* jaundice, dropsies, cutaneous eruptions of the foulest species, infest the melancholic, particularly when intemperance in the use of intoxicating beverages has concurred in the formation of the complaint.

The dissections of the bodies of those who have died melancholic have frequently shewn a sensible disorganization in various interior parts. The alterations that respect the brain and its enclosing membranes and bones are found to agree very nearly with those already described under the article epilepsy. There is often a preternatural thickness of certain parts of the skull; and not unfrequently other parts are reduced to such a degree of thinness as to be nearly transparent. But this latter alteration seems to depend in most cases upon the unhealthy state of the parts below, which enlarging and pressing upon the bone, carry the process of *absorption* to so great a height, that more bony matter is removed than the feeding arteries supply. Interior excrescencies of some of the bones, composing the skull, have been detected as in epilepsy, as also caries, ulcera-

tion or what is frequently called *rottenness*, in speaking of the teeth.

The softer parts are observed to have undergone full as extraordinary changes. The membranes shall many times have concreted in consequence of a process, better known to anatomists since the researches of the late Mr. HUNTER. They coalesce not merely with one another, but with the brain and skull. The fine soft membranes that lie next the brain acquire a coarse texture and are inflamed. Ossifications or diseased formation of bony masses are discovered in the outer membrane, which is naturally thicker and coarser. This is particularly the case in one of its processes, which passes between the two hemispheres of the brain and is called *falciform* from its similitude to a scythe. Collections of watery liquid, effusions of blood and over-fulness of the blood-vessels are common occurrences.

This work of destruction is often distinctly seen to extend to the brain itself. Various are the relations of the examiners of the bodies of the melancholic dead concerning the hardness, dryness, and less specific gravity of this important organ. But in a much greater number of observations do we read of its changing to the opposite condition. It is there described as pultaceous, almost liquid, and yields to the

slightest pressure. Hardnesses, known by the name of *schirrous* steatoms, and abscesses have been noticed. The interior of the brain has been found to contain hydalids. The cerebellum or little brain has equally lost its healthy constitution. It has contained hard tumours as also abscesses, and has been reduced to the same happy mass.

It is true that these alterations in the head have not always been found. But it should be considered that the dissecting knife, though it be the instrument to which we owe our superiority over the antients in deducing inward lesions from external signs and from particular sensations, and which therefore may be considered as the glass that shews the state of the viscera through the otherwise opaque walls of skin and flesh, can be by no means adequate to lay open *all* the effects of unhealthy processes. There may be changes of parts a great deal too subtle to shew themselves upon the sides of a fresh cut. We should not therefore permit ourselves to reason negatively from dissections, which are often cursorily and ignorantly made.—Possibly chemical analysis may, one day, add to our acquaintance with the alterations of the living substance as much as the best *morbid* anatomist knows beyond one, who has never seen a dead body opened. And

if means of ascertaining such effects as now escape us, should in future be discovered, those recondite effects will probably be much more universal in patients, who have suffered from a given disorder, than the grosser ones heretofore recorded, because they will lie so much nearer to the healthy condition. The stage of disorganization which our anatomy detects is probably one that many invalids never reach. It is remarkable that the scalp is affected, being looser in the mad.

As we shall find insanity consequent upon practices, that injure the stomach, and its train of auxiliary or subordinate viscera, it is satisfactory to find the appearances after death, in numerous instances confirming the opinion that these practices are its cause. Almost all the contents of the abdomen have been detected in a diseased condition—the liver for example, enlarged, or hardened; or studded with tubercles, and adhering to the contiguous parts—the gall-bladder full of concretions—the mesentery, omentum, and other parts no less deviating from their condition in health. It is related that the interior changes have sometimes corresponded to the sort of insanity; the ovaria having been indurated, when the mind had roved upon the sexual intercourse.

The mental part of melancholy is generally



considered as consisting in having the attention fixed upon a single object, and forming erroneous judgments concerning that. Thus it is remarked that the mathematician VIETA, who devoted three days and three nights uninterruptedly to an algebraic calculation, was not melancholic, because there was nothing wrong in his judgment upon the matter before him. But had he imagined the signs he used to be characters of fire, he must infallibly have been reckoned mad.

The origin of melancholy is often not easy to recognize. But when the mind adheres to one subject almost exclusively, when passion is connected with this set of ideas, and when there is at the same time great loss of sleep, the approach of the disorder may be suspected. If frequent false perceptions occur, if the behaviour undergoes a striking change, if there be an unusual degree of intractability on the one hand, or of gentleness or demonstrations of friendship on the other, if the understanding start rapidly from some matter in discussion to another quite different, and if the memory fail, and frequent absences succeed, the first stage of the complaint may be considered as having taken place.

They often distinguish MANIA from MELANCHOLIA by an universal, or at least a more

general erroneusness of judgment in the former, and by the violence of the movements, connected with these errors. Where the commencement of mania is distinct, the patient is apt to be habitually sleepless, incapable of business, averse to amusements, depressed, solitary and wrapt up in his own thoughts. Among the frequent precursors of mania, may be enumerated violent giddiness, headache, deceptions of the senses, tremblings, shiverings, twitchings of the flesh, convulsive startings, especially on falling into a dose. Great irregularity of the pulse, palpitation of the heart, oppression of the chest come on at times. Those who have too much chance of afflicting their friends with the idea of insanity infesting the family, will often undertake distant journeys at a moment's warning; engage without hesitation in the largest and most hazardous enterprises; yield continually with more and more reluctance to argument or remonstrance; turn an equally deaf ear to the claim of a child, the entreaties of a consort, and the authority of a parent.

When confest insanity has commenced, the countenance assumes a wild, staring, frightful expression. It has been said of a celebrated public character that the most bungling drawer of a caricature never yet exhibited him so that

he could not be recognized. The same may be said of maniacal lunatics in their accessions, and at times also of those that are only being worked up to madness. So clearly does tension, prominence and fire distinguish the eyes of madmen from those of persons in their sober mind—

Ardent oculi : (says an ancient dramatic writer)  
fune opus est.

The doubt which a certain kind of behaviour often excites in common life, *whether a particular person be drunk or mad*, is justified by attentive observation of lunatics. The disease operates like spirituous liquors, insomuch that those, who are unacquainted with the symptoms of approaching mania, ascribe them to excess in drinking.

When appearances like these have gone on to shew themselves for a longer or shorter time, the frantic paroxysms commence with more or less notice. From his usual excessive and animated loquacity the patient will pass into discourse, entirely wild, incoherent and irrational. He will become agitated, assume a lofty demeanour, exhibit an aspect full of fury, express a deadly aversion or an outrageous predilection for particular persons, utter the most

unprovoked threats against them, or call down the most unmerited blessings, shout, curse, pray, chaunt, laugh almost in a breath, betray feelings of the utmost lasciviousness, neglect cleanliness altogether, and exert a surprising degree of muscular power.

It may seem singular that some maniacs in the very rage of the fit shew nothing of what is called *delusion of the senses*, but very distinctly recognize objects and persons, but judge concerning them in the most erroneous manner.

The degrees of ability to recollect what has passed during an accession seem very different on different occasions. Some can recal every particular. Others are able to repeat what has been said to them, but they are apt to repeat it with false accompaniments and under circumstances different from the reality, believing themselves, for instance, to have been in quite another place and with other people. They frequently forget the coinings of their own phrenzy, but remember the sort of treatment they have undergone. Still more than partial forgetfulness occurs. They will be conscious of things having passed through their mind, but can, by no effort, call back any of the things themselves. Sometimes even this consciousness does not exist, but all their agitation passes away without leaving a trace behind.



It is, we see, therefore very much with maniacs as with those that dream. The whole picture with its finest shadings remains impressed,—or only the outlines of some of the figures are preserved,—or else the whole is obliterated; nor would it be known but for indubitable effects, that manifest themselves to the bystanders, that any striking images, or any at all, had presented themselves to the fancy. Indeed, during intervals of reason and after recovery, those who may be supposed best able to give an account of their own feelings, compare their phrenzy fits to dreams. And they agree with those who have been occupied by any interesting exhibition, in being surprised at the length of time that has elapsed since their attention was drawn to themselves. In describing the state of their intellect, they speak of an uncontrollable hurry and whirl of ideas, by the rapidity of which every endeavour to fix upon any one subject of thought in particular has been rendered abortive.

It has been often remarked that phrenetic insanity is aggravated or supervenes in the morning; as if sleep had the effect of aggravating this like other nervous complaints. A female patient, concerning whom I have the most exact information, was for a considerable time only nervous, that is, tremu-

lous, weak, and too quickly sensible, and then she was always the better for her breakfast. But a feverish complaint having been succeeded by insanity, she was regularly for months worse after breakfast than before; and it seemed to make little difference of what the meal consisted, or whether it was cold or warm. It was enough that the stomach was any way moderately distended for the excitement to be brought on.—This *general* aggravation of the symptoms in the morning, is denied by other observers of the most extensive opportunities; and it is affirmed that the evening and great part of the night, are the seasons of most violence with incipient lunatics. Perhaps the want of sleep during the night preceding, or its variations as to tranquillity or disturbance, may make a difference; to which, if lunatics could more frequently be studied singly by those, who had already seen them much in mass and were well acquainted with all the facts that books supply, other causes of individual variations might in all likelihood be added.

In one observation the different reporters appear generally to coincide; and this is of considerable importance, when combined with the frequency of palpable disorganiza-

tion in the head. The symptoms are aggravated by the horizontal position. The feelings of raving lunatics would appear to impel them to seek alleviation by keeping themselves as erect as possible. For when fastened, they are observed to sit, scarcely ever to recline. Unless indeed it should be said that the calm, recumbent state is incompatible with so much mental agitation. And we must, I believe, suppose that few persons, suddenly stimulated into anger as they were lying along, would continue to repose in the same easy manner.

It is one of the most constant consequences of derangement to impair the memory. Cases are related, in which though the diseased loquacity continued, the patient came at last to be unable to finish any one sentence; and this destruction of the associating quality often proceeds to idiotism, in which the mutterings shall be almost continual, but utterly without sense, as scarce presenting three words belonging to any one subject. Persons of good education, on being long confined, lose the power of spelling their own language, and write, like the untaught, from the sound of the words. But it is difficult to know how far this depends upon the disease, since it is not ascertained in

what time want of practice in reading and writing will reduce those in a sane state to a similar degree of ignorance. Lunacy appears considerably to lessen the chance of life. Death is no uncommon consequence of violent fits; when phrenzy is succeeded by languor. Here the powers seem to be destroyed by over-exertion. The disorders above enumerated, as following upon insanity, are often fatal. But although in two sets of persons, of which one should be deranged, but otherwise similarly circumstanced, it is probable that, after a certain period, there would be more survivors among the sane; single instances of longevity are noticed in madhouses. In Bethlem Hospital, a person not long since died at 78 years of age, after being more than thirty years on the incurable establishment. This was a remarkably placid madman. Maniacs themselves sometimes live to a good old age, and shew all the signs of a good habit of body, though scarcely when very furious (*Chiarugi della Pazzia in genere e in specie*). No lunatic, I think, occurs in the lists of those who have been most distinguished among mankind for length of years.

In our own country, as far as enquiry has hitherto determined, females are more sub-



ject to mental alienation. It is well known that this, like epilepsy and other nervous disorders, are very frequent consequences of the exercise of the functions peculiar to the female constitution. They are particularly apt to attend pregnancy and child-birth. But in return a greater number of lunatic women recover, and especially of those who have suffered from these causes.—Abroad, the case is believed to be reversed. The writer last quoted, who in four years had the opportunity of seeing eleven hundred and fifty seven lunatics in the hospitals of St. Dorothea and St. Bonifacio at Florence, states the proportion of deranged males as exceeding that of females by one-fifth.

It can hardly be doubted that a particular complexion, or rather the sort of constitution connected with it, disposes to insanity — Mr. HASLAM of Bethlem Hospital, to whom we owe interesting observations on this disease, and from whom we may one day expect still ampler information, relates that of 265 patients, only 60 had a fair skin, with light, brown, or red hair. All the rest were dark. The same fact appears to extend to other countries. Dr. PINEL remarks that those lunatics, who are most difficult to confine in a hospital, who are most remarkable for tur-

bulence, and most subject to sudden explosions, almost all bear the following external characters. They have bolder and stronger features, sparkling eyes, an adust and often yellow complexion, hair of a jetty black, sometimes crisp; strong bones, but no fat; powerful but slender muscles—a strong and hard pulse.

Some observers have found the spring most productive of alienation of mind. Others think that the seasons are all alike: but the influence of heat and cold has too distinctly appeared in various instances, to be any further questionable. In long sea-voyages, where the transition is sometimes quicker and more considerable than in the same climate, passing into colder latitudes has very regularly produced a calm, and into warmer ones all the violence of frantic accessions.

Insanity is indubitably connected with certain periods of life—a fact which, I think, will be found of considerable use in illustrating its nature and causes. Mr. HASLAM gives the following table from Bethlem Hospital.

Between the age of	Admitted.	Cured.	Not cured.
10 & 20	113	78	35
20 — 30	488	100	288
30 — 40	527	180	347
40 — 50	362	87	275
50 — 60	143	25	118
60 — 70	31	4	27

In other countries it would appear that the same law obtains. Dr. PINEL states the ages of the lunatics received during eleven successive years into the Bicêtre at Paris, as follows :

	Between 15 & 20.	20 & 30.	40 & 50.	50 & 60.	60 & 70.
In 1784	5	33	31	11	6
1785	4	39	49	14	3
1786	4	31	40	15	5
1787	12	39	41	17	7
1788	9	43	53	18	7
1789	6	38	39	14	2
1790	6	28	34	9	7
1791	9	26	32	7	3
1792	6	26	33	12	3
1793	1	13	13	4	2
1794	3	23	15	9	6

On enquiring from persons who have had the care of lunatics, what kind of persons they were accustomed to receive in the greatest proportion, I have been informed that it consisted of members of the clerical profession, but could scarce obtain any distinct opinion concerning others, except devotees. Dr. PINEL, on examining the registers of the Bicêtre, says that he found inscribed “ a great many monks and priests,  
 “ as also a great many country people, who  
 “ had been driven beside themselves by  
 “ horrid pictures of futurity;—several artists,  
 “ as sculptors, painters, and musicians;—  
 “ some versifiers, in extacies with their own

“ productions ;—a pretty considerable number of advocates and attorneys ;—but there does not appear the name of a single person, accustomed to the habitual exercise of his intellectual faculties ;—not one naturalist, or natural philosopher of ability ;—not a chemist or geometrician.”—

It has been remarked as singular at the Charité at Berlin, that several chaplains became insane in succession. But this seems to be imputed to their situation as chaplains, though the spectacle of madness does not appear to have affected the other officers of the house, or attendants upon the insane, in the same manner.

*On the Validity of the DISTINCTION between MELANCHOLIA and MANIA.*

Such are the most obvious and striking facts respecting insanity. There is not one of them for which several competent vouchers may not be quoted ; and as to the most important, there is a general agreement. He who would explain what sort of an affection insanity is, and how it is formed, must attend to these particulars ; and by comparing them with the explanation, the reader will be in some measure enabled to judge how far it may answer his just expectations.



Modern nosologists have so entirely departed from the original principle of distinction, by which melancholy madness was characterized according to the appearances of what is vulgarly called *melancholy* in sane people, that they now give us no other criterion than the partial nature of the insanity. "Insanity" says Dr. CULLEN, "consists in such false conceptions of the relations of things, as lead to irrational emotions or actions. Melancholy is partial insanity without indigestion—Mania is universal insanity." According to this account, the partition between the two is thin indeed, It is a mere difference in degree. It sounds much the same as splitting small-pox into *partial* and *universal*, because sometimes there happens to be only one pustule or pustules but upon one limb; while at others, the eruption is diffused over the whole body. Such a system of subdivision is contrary to that, which is followed with regard to all other disorders, and indeed contrary to what manifest propriety suggests. Nearly all disorders exhibit the same variety of gradations without being marked, for this reason, as specifically different. It is making the plant from an acorn dropped upon a rocky soil, not an oak, because it does not rise to

the height, or spread to the extent, usual to the king of the forest. It answers no purpose in prognostication or practice. Accordingly, it is pitiful to see what attempts are made to maintain the distinction by writers, who have not the courage to reject it. Thus the experienced CHIARUGI says, that “mania  
“ properly signifies raving madness. The  
“ maniac is like a tyger or a lion, and in  
“ this respect mania may be considered as  
“ a state opposite to true melancholia.” Nevertheless the intermixture and alteration of symptoms oblige him to create a species of raving melancholia: and he adds, “that  
“ there are alienations of mind, attended  
“ with a fixed hatred towards some single  
“ object, to which, at a later period, sallies  
“ of rage associate themselves, returning on  
“ certain occasions. Now to determine  
“ whether this affection deserves the name  
“ of mania or of raving melancholy, the  
“ behaviour of the parties must be watched.  
“ If they be truly maniacal, they will not  
“ for ever continue immoveable in respect  
“ to the object of their hatred, but at times  
“ transfer it to other objects, which shall be  
“ exhibited to them by their excited fancy  
“ in a very lively manner, but indistinctly  
“ and in irregular connection with the series

“ of their actual sensations.” So if a lunatic abhor but a single person only, he is to be set down under one head; and if he chance to take it into his head to be affronted with another, continuing otherwise just the same, he is to be removed to a different disorder. Delicate lines indeed! and which must escape not only the eyes of other people, but at times those of him who drew them! As if hatred and suspicion did not, almost in all cases of derangement, diverge from their first object, or might not at least by the smallest provocation be derived to others.—Again, the same author allows that there are maniacs, who will listen to the remonstrances of their friends, and become tranquil in consequence. That is, there is an universal insanity which is partially rational.—Again, he tells us, that “ though fury may not be always present, “ yet the disposition to it is always to be “ observed.” It is singular that a physician who had had so many hundreds of the insane under his eye, did not remember in penning this passage, how often the disposition to fury is to be observed in the melancholic, that is, in those who strictly brood over one idea, and how apt they are to burst from their meditations and offer violence to those, who

injudiciously disturb them? A writer, the most remarkable of all for the multiplicity of his divisions, confesses at last, that “all these species of insanity may be variously combined, and frequently interchange, one with another. It may be proper farther to remark that the same patient sometimes goes through several kinds of insanity—which may be reckoned in such cases as so many degrees or stages, during the course of the same illness.” (*Arnold on Insanity*, I. 316.) The respectable testimony of Mr. HASLAM is still more express respecting the nullity of the common distribution. “As the terms *mania* and *melancholia*,” says he, “are in general use, and serve to distinguish the forms, under which insanity is exhibited, there can be no objection to retain them. But I would strongly oppose their being considered as opposite diseases. In both, the association of ideas is equally incorrect and they appear to differ only, from the different passions which accompany them. On dissection, the state of the brain does not shew any appearances, peculiar to melancholy; nor is the treatment which I have observed most successful, different from that which is employed in mania.” “We every day,” says the



same observer, "see the most furious maniacs  
" suddenly sink into a profound melancholy;  
" and the most depressed and miserable ob-  
" jects become violent and raving. We have  
" patients in Bethlem Hospital, whose lives  
" are divided between furious and melan-  
" cholic paroxysms, and who, under both  
" states, retain the same set of ideas." Let  
me add one more confirmation. I was very  
lately favoured with the perusal of a manu-  
script, which if it could ever appear before  
the public, would go far to demonstrate that  
this and that form of insanity are only sup-  
posed to be so limited to individuals, because  
cases are seldom observed long together with  
close attention. A medical gentleman, who  
had for years superintended a lunatic asylum  
was obliged, on account of indisposition of  
his own, to retire from his professional pur-  
suits. During this secession, he lived under  
the same roof with an insane patient, and  
kept a journal for many months, in which  
regular entries were made morning and even-  
ing. The practitioner visited the patient  
daily, and sometimes repeatedly on the same  
day. He had almost hourly reports concerning  
her. The diary exhibits the utmost con-  
ceivable range of symptoms, and the author  
expressly assured me, that this one case

shewed him every material appearance which he had observed in all the patients that had ever been under his care.

The true relation of Melancholia to Mania may, I apprehend be stated with the utmost simplicity; or if we reject these names, the true relation of the two general forms, (the *penseroso*, and sometimes the *allegro*, oftener the *furibondo*) under which insanity manifests itself; namely, abstraction and agitation. There are certain children, in whom correction or reproof is almost sure to bring on a fit of sullenness; and who, after receiving the one or the other, will stand for a considerable time as fixed as if they were only images of animated creatures. But a very trifling occasion will provoke an ebullition of the passion that is raging within. If a smaller boy happen to pass within arm's length, though without giving more offence than the wolf in the fable received from the lamb's drinking lower down the stream, the young melancholic will immediately invent some cause for quarrelling, and play off a maniacal paroxysm in miniature at the expence of his over-matched playfellow. Thus it is, I think, exactly that melancholic absorptions generate maniacal extravagancies. The storm goes on to drive for a while, and that

sometimes not a short while. But in innumerable cases, the apparently dead calm, though in reality it be a season of deep retired, despondent, and sometimes pleasurable feeling returns, to be, in like manner, succeeded by the hurricane in its season.—*Torpid* melancholy! *torpid* grief! they may as well apply the epithet to the boisterous state of passion or insanity, and speak of *tōrpid* anger or *torpid* phrenzy. As long as it continues to be either grief or melancholy, there must be an internal agitation far beyond the average warmth of sane and complacent mortals, and this internal agitation will generally display itself to the experienced eye in some species of muscular action, as we shall see below. It is true that melancholy often ends in vacant, purring idiocy; and so does mania as well. I have already stated it to be followed by speedily fatal exhaustion.\* The succession

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\* It may be proper to give one example. “An Austrian prisoner remained 2 months in a state of constant agitation; crying or singing without remission, and tearing to pieces every thing, upon which he could lay his hands. He grew calm in the night between the 3rd and 4th of brumaire, year 3. In the morning he appeared reasonable, but in an extreme state of debility. He took food, and walked several turns in the courts. In the evening,

is analogous to what takes place in inflammatory disorders; the extreme of languor to the extreme of energy.

When, after a long absence, any one visits the companion of his boyish days in a state of melancholy derangement, and finds himself no more noticed than the last billet of wood which the servant laid upon the fire, it is difficult not to infer a total abolition, or at least, a great diminution of feeling. And I have, not unfrequently, been in the way of seeing such inferences instantly drawn and inexorably retained. Once or twice, I have known them corrected, either by a burst of feeling, issuing from the gloom of abstraction, like lightening from the bosom of a thunder-cloud; or by the spectator's observing quick motion of the lips and other mus-

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"on withdrawing into his cell, he said he felt chilly. He had, in consequence, an increase of blankets. In the round which the keeper made a few hours after, he found the man dead in his bed, preserving the same position as on lying down."—The weather was at freezing: and Dr. PINEL mentions another death the same night. He agrees with Mr. HASLAM in stating that lunatics enjoy no general privilege of insensibility to cold.—Some, however, resist its effects prodigiously (p. 31.)—The scarcity in France was dreadfully fatal in the Bicêtre, where the insane were put on a short allowance.



cular affections, associated with busy thought; or what is more decisive still, by the consequence, inevitably resulting from a whole history of ideal occurrences, which the patient, before his disease retires altogether into the interior, will sometimes relate with full belief. Now such coinings of the brain irrefragably imply action of that organ or whatever other may assist in the process. Many such processes, no doubt, are carried on with as high a *verve* or as true fervour as ever accompanied poetic fiction. Melancholia can even rekindle the embers of mental fire after all that age and residence in a court contribute to their extinction. There is now perhaps confined in the Bicêtre at Paris, there certainly was not long since, a person, once attached by his places to a prince, but whose wits perished with his fortune in the wreck of the revolution. His melancholy consists in supposing himself invested with irresistible power. On ordinary occasions, he perfectly preserves in the hospital his habits of politeness, and if contradicted, retires making a respectful bow, without heat or murmur—One day, however, when the keeper remonstrated to him on the filth that he left in his apartment, the lunatic broke out with the

utmost violence, and threatened the other with annihilation.

There is, I think, one grand mistake which we perpetually commit in judging of the moral nature of one another. It extends to the insane and the sane alike. We conclude respecting the existence or non-existence of sensibility, according as it speaks the same language, and keeps the same company with our own, or the reverse. Each makes his particular inclinations the standard for the world. Scarce a person who contemplates the use of wealth or authority in a superior, but makes himself amends for the disparity by complacently imagining how much better use he could make of the same means. So far all is fair.—But fairness also requires that we grant as well as take. A perverse vine may choose to throw its tendrils round a thorn, instead of its prescriptive classical support, the elm. But can we say the vine has no tendrils, because it uses them so unworthily? We may find occasions for pronouncing that sensibility is misplaced; but it is much seldomer lost or decayed than is commonly supposed. *Where the treasure is, there will the heart be also.* But if the treasure be in a wrong place, is there therefore no heart?

Dr. JOHNSON, somewhere in his Rambler, speaks of a mathematician, who when sudden intelligence was brought him that the flames were gathering round him, instead of catching the alarm, sedately replied, that *fire naturally tends to move in a circle*. The anecdote is said to be authentic, but the relater, from this one trait, labours to make out a whole character, of which the essence may be gathered from the appellation of GELIDUS. For my part, I do not see any reason for believing that this GELIDUS had less warmth of disposition than the most frightened of those who were in haste to carry their property, or their children, or themselves, out of the reach of the conflagration. The affections of the mathematician, it is true, were bent upon none of these first. But there are such things in the world as coefficients and abscisses. And by these were his affections pre-occupied. He ought to be qualified as mad if you please, but not, for any thing that appears, as cold.

To any man, who has had great interests to meditate, the apparent or real inattention of the melancholic (consistently with profound sensibility) to the objects noticed by others, ought not to seem a strange or a puzzling doctrine. At one time, while

reviewing particular ideas, we hear and see without manifesting to the bystander any tokens of our impressions. At another, we are lost in thought, and the clock strikes unnoticed. The sound cannot introduce itself among the links of the passing train. The melancholic is still more lost when the fit is on him, and he notices nothing; or else (as formerly exemplified in the case of a noctambulist), he draws every thing about him into the whirlpool of his sensations. If the minds of others may be in any measure compared to vanes, which take their direction from without, his mind is a machine, which by its rapid circumgyrations not only resists the common mover, but takes this, as it were, into tow, and forces it to become its minister.

The transition to outrageous action is nothing more difficult to comprehend.—What more natural than that feelings and ideas, strongly worked up together, should excite a corresponding energy of muscular exertion?—The following reflections may illustrate this, if it should be thought to want illustration.



*Whether Madness admit of an essential  
Character?*

There are a number of terms in language, which every man, at least till he is cross-examined, can define to his own satisfaction, but no one to the satisfaction of others. Such are *animal*, *vegetable*, and in a still more difficult degree, certain terms of moral import, as *wise*, *delicate*, *pious*, *virtuous*. They are first employed in relation to the habits of the individual, or of the community to which he belongs. Then, from a continually widening sphere of observation, they gain, by analogy, an import so extensive, that it becomes next to impossible to find a point of agreement among the objects, to which they are respectively attached. So their signification becomes almost a matter of mere feeling. To know the original meaning of each, generally affords some clue, and we can then perceive by what steps the understanding has proceeded. Thus *virtue* meant *valour*, or rather *manliness*\*, before it had its present seemingly so remote and placid signification. To excel in warlike

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\* *Virtus*, virtue—*vir*, a man.

atchievements was at once the most difficult and useful accomplishment in a tribe of barbarians, every one ferocious and hardy, and all combating at times *ad internecionem* against other tribes. This therefore most became a man. In process of time, other qualities were felt as useful and difficult to acquire. So these were stamped as *virtuous* or *manly*.

MAD is one of those words, which mean almost every thing and nothing. At first it was, I imagine, applied to transports of rage; and when men were civilized enough to be capable of insanity, their insanity, I presume, must have been of the frantic sort, because, in the untutored, intense feelings seem regularly to carry a boisterous expression. But the frantic would, at times, fall into the opposite immoveable extreme. The conjunction of both states in the same individual might, I conceive, cause the term to be by degrees transferred to the second, where that alone appeared.

The difficulty of a definition of madness, which shall be generally accepted, is evident from another consideration. The insane have the same muscles with the sane. In both, they perform the same general office. Few need be told that in all men, discourse, look, and gesticulation, depend on fixed or alter-

nating muscular contractions \*. These alone are the outward tokens of the state within.

But the number of muscles, and the range of contraction in each, are such as to present combinations without end.—Let us attend to the countenance only. If we had a series of drawings, ascending by the closest gradations from the face of a sleeping infant (a being incapable of insanity), to that of the most furious inhabitant of Bedlam, who would undertake to point out the last among the sane, and the first among the insane? But if there be no hope of agreeing as to a simple object of sight, what chance can there be of compromise where the circumstances cannot be, in the same manner, subjected to

\* The appearance of the eye, which is so striking in the maniacal state, is regulated by its muscles. Though hollow when the patient is calm, it will protrude on the commencement of the paroxysm. This arises from the rigidity of certain muscles to be seen on the back of the ball in any set of anatomical plates. The glistening is a similar operation. The dullness of the eye often arises from a sort of corrugation of the coats, though the furrows are not singly visible. But when all the moving fibres become tense, the coats are fully unfolded, and shine.—Sometimes the presence of the keeper of a madhouse shall overawe the raving patient, till his tongue and limbs become in a moment composed. But the eye will retain its characteristic expression.

steady contemplation? To what purpose does the nosologist talk of "*false conceptions of things*" and of "*irrational emotions or actions*", (*pathemata vel actiones præter rationem*)? I am not sure that he can explain to us what *false* is: I hold it as certain that he would be baffled by *rational*.

*Too much learning has made thee mad!* This is the perpetual motto of the vulgar. The more limited a man's range of information, the more readily does he attach the imputation of extravagance to any mode of conduct, varying from his own. Talking to one's self is sufficient to make one pass for insane, with those who have few or no *vivified* ideas. But one distinction will apply to these opinions, as generally as can be expected, where the circumstances, on which they are founded, are so fugitive and various, and where those, who form them, so capricious and undiscerning. They are applied to strong actions or to expressions of countenance that imply somewhat of consideration; never to mere imbecillity.

The fool of nature stands with stupid eyes  
And gaping mouth, that testify surprise.—

Such an one will scarce any where be pronounced mad. It is something beyond, not



short of, himself, that draws this sentence from the ignorant.—It is the perversion of faculties, not their privation.

The knowing do not extend the boundaries of insanity so unmercifully, but they have no exact criterion for distinguishing it. They too can only judge of others by themselves. When the mind is occupied, and the active powers employed for an end, which they cannot conceive as desirable or attainable, there the party seems no longer in his right wits. He may not yet have attained a degree of wildness, at which it shall be necessary to seclude him from society. But he is in a fair way to reach this point. He may not at present be dangerous to others, nor likely to walk over a precipice, or into a river. He is not yet so possessed with his delusion, but that he can strike a bargain, or attend to the items of a tradesman's bill, and ascertain its amount.

When there is no longer merely question about throwing out an imputation or cutting a joke, but depriving a person of his liberty, just the same uncertainty prevails. Those with whom it rests to decide, have nothing for it but to look into their own bosom, and on comparing the series of their own thoughts and actions with that in question, to strike

the balance. If they find it considerable, they put it, of course, to the account of derangement. There are thousands who mix uncontrouled among the sane, and yet are subject to the most irrational feelings and actions from false conceptions. Such are the parents, whom we continually see wasting the inheritance of their offspring in an incessant round of wrong-headed projects for increasing it. Of the falseness of their conceptions, the injudicious adaptation of their means to the end proposed is a sufficient guarantee; and we have *primâ facie* evidence of their irrationality. May it not be doubted whether any criterion can be established upon the phænomena, exhibited by a number of the most declared lunatics, which shall exempt the great NAPOLEONE BONAPARTE from the imputation of a tainted understanding? On the eminence where he sits, and on which it is well if we may not soon have to inscribe—

——— Tyrant power  
Here sits enthroned in blood———

it must be evident to every spectator that he is in a state of inordinate agitation. Whether his conceptions are false or otherwise, cannot be determined before we know exactly what

they are. But if it may be presumed that he has in contemplation the happiness of the millions whom he governs and his own, their justness and the rationality of his conduct would appear very problematical. And if he *has* any other purpose in view, it would, I think, be the verdict of an enlightened jury *that he ought to be put out of harm's way*.—Similar reasonings may involve a character, lately too conspicuous in our own country, who in aspiring to rival the glory of a predecessor in the conduct of military enterprises,—in conceiving falsely of our own state and of that of the enemy, and in *his* perpetual vauntings, displayed all that permanence of delusion of sense, all that agitation and presumptuousness\* that characterize the maniac. If with Dr. DARWIN, we make madness to arise from “excess of action of the sensorial power of volition,” we shall infallibly comprehend such cases as the preceding. But we shall be still equally at a loss for a line to divide the

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\* One of this man's boasts was *that he understood human nature*. Taking the pretence in a partial sense, it perhaps was well founded. He was acquainted, I believe, with all its disgraceful parts, with its corruptions, and its readiness to be gulled by mountebanks. He understood human nature, in short, just as a scavenger understands a magnificent city.

sound in mind in general from the unsound. For that term "excess" is as vague as the thing to be defined, and can only find an uncertain application, when the question arises on any particular case, according to the varying understanding and conscience of individuals. In conformity with what universally occurs on adverting to the subject of madness, Dr. DARWIN observes, "if every one, who possesses mistaken ideas or who puts false estimates on things, was liable to confinement, I know not who of my readers might not tremble at the sight of a madhouse." But in like manner, if actions, resulting from a will, intent upon an object beyond its value, or inordinately exerted, constitute insanity, there would be cause for just the same apprehension, as it might be difficult to find one mortal, who could pass for sane with others.

*Chief Particularities of the confessedly insane.*

Dismissing therefore all pretensions to establish an essential character, or to give a tenable definition of madness, and throwing it out for the consideration of the intelligent, *whether it be not necessary either to confine*



*insanity to one species, or to divide it into almost as many as there are cases* \*, I shall extract from the history of lunatics such circumstances as principally characterise their intellectual aberrations. Afterwards, I shall endeavour to fix upon the point at which they usually begin to go astray, and follow their wanderings till they are lost. Hence it will appear to a certain extent, how they might have been kept in the path of right reason.

We have seen that imbecillity is distinguished, according to the common apprehension of men, from insanity, and that, contrary to first appearances, torpor is inconsistent with insanity in any form. It may now be added that *the mind acts with unusual energy*. The only doubt is when the patient preserves an obstinate silence. But in a large proportion of cases, the ruling ideas break out or may be elicited by entreaty. Thus in one of the entertaining articles of Zoonomia, (Class iii. Order 1, Genus 2, or vol. 2, 8vo. ed. p. 54, &c.) “ a most elegant lady is said

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\* I have looked over the species of insanity in many writers. They have appeared to me to be conceived in this spirit. Suppose the human appetite to be divided into the appetite for animal and vegetable food: and these again into the appetite for venison, veal, mutton—pease, beans, and so forth.

“ suddenly to have become melancholy, and  
 “ yet not to so great a degree but that she  
 “ could command herself to do the ‘honours  
 “ of her table with grace and apparent ease.  
 “ After many days’ entreaty she at length  
 “ told the author that she thought her mar-  
 “ rying her husband had made him unhappy  
 “ (though it was a love-match on both sides)  
 “ and that this idea she could not efface from  
 “ her mind day or night.” Hundreds of  
 similar examples of deeply retired and in-  
 tense thought might be quoted. Now the  
 induction from the majority of instances  
 may be legitimately extended to the mino-  
 rity, where neither art nor authority can  
 draw forth a confession. It seems even fair  
 to suppose that the more unfathomable the  
 mind, the busier are the movements going  
 forward in its recesses.

It very generally holds *that in insanity the  
 ideas are vivified, or that they are exalted to  
 the force of impressions.* This, if any one, is  
 the cardinal point on which the whole affair  
 turns. When a person continues to maintain  
 that he has been an actor in scenes, which  
 never took place, all the world agrees in  
 putting him down as mad. It is a fact  
 which perpetually occurs. Thus I knew an  
 insane officer, who believed himself to have

been brought to a court-martial, though in the real history of his life there was not the least vestige of such a transaction. The insane are perpetually without cause imagining themselves infected with symptoms of the itch or of the venereal disease.

From a small germ of fact, there shoots out in a moment an extensive ramification and luxuriant foliage of imaginations, all equally distinct to the mind with the first perception. I have before me a very detailed account, by a medical insane patient, of the transactions of the three or four days, immediately preceding his confinement. He drew it up for the satisfaction of the superintendent of the lunatic asylum, into which he was received. It exhibits, in the most curiously minute manner, the workings of his fancy. The persons about him, aware of his state, keep a constant eye upon him. Of this, from the usual sagacity of invalids in the same situation, and, I suppose, from consciousness also, he becomes immediately sensible. Then, in the activity of his thoughts, he imputes motives of his own imagining to their conduct. With the help of this scaffolding, his castles run up into the air with meteor rapidity. On every countenance, he

reads avowals (legible to no one else) of the schemes he conceives formed against him, and combines friends and strangers into one grand conspiracy against his life. For example—the writer supposes poison had been administered to him, but that he had escaped death by taking sparingly of the liquid with which it was mixed. On one occasion, he holds the person whom he believes to have given it him fast by the wrist. He goes on to say—“ He sometimes affected to smile at  
 “ me with pity for my unhappy state of  
 “ mind. Then he would lean back on the  
 “ couch, close his eyes, then open them a  
 “ little, so that the eye could barely be seen  
 “ through the lashes, and so as to prevent  
 “ his being observed, as he thought. At  
 “ those times, he would cast the most infernal looks at *me*, and afterwards round  
 “ the room, for some weapon or other to  
 “ finish what he had begun: The latter I  
 “ could see not only from his looks and the  
 “ hardness his muscles used to assume, but  
 “ also from the posture he would put himself  
 “ into—ready to jump, if he discovered  
 “ what would answer his purpose.” In this style the account proceeds throughout, detailing the incidents with perfect accuracy, but forcing on each the strangest construc-



tion, and putting upon every countenance looks, the most favourable to this construction, but the most remote from the reality. The reader may find a similar example in ROUSSEAU's ingeniously mad commentary upon Mr. HUME's real or supposed expression: *Je tiens J. J. Rousseau.* (*Oeuvres compl. de Rousseau, par ordre des matières, tome xxvii.*) \*

The imagination of the poets is content with personifying inanimate objects. That of lunatics frequently goes a great deal further, and strips them of their own personality. It would not be believed, were it not so perpetually experienced, that a human being could come to conceive himself made of butter; or that his legs were of straw; or that he was a barley-corn. The fact proves the force of imagination; and perhaps may be in some measure explained. An invalid of great brilliancy of parts once said to me, that but for a particular expectation, "*he would as soon be a nettle in a country church-yard.*" If his spirits had declined

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\* "*Les longs et funestes regards tant de fois lancés sur moi—un ton, dont il m'est impossible de donner l'idée, et qui correspond très-bien aux regards dont j'ai parlé.*"  
—*Rousseau.*

further, and the wish for this metamorphosis had recurred often, it might, at last, have been considered as realized. Such are the contemplations, which when seconded by external circumstances, end in melancholy. A devout person reads in scripture that *all flesh is grass*. The words strike him. He ruminates. He is doubtless flesh. But he has irrefragable authority for believing that flesh is grass. Therefore he is grass himself. What logic can be clearer! If he has gained this step, how easily may he go on to apply to his person all the qualities of grass. He may act upon it, that is, according to Dr. DARWIN, he may raise delirium into insanity, by standing out all night to receive the refreshing dews, and lurking all day in the cellar to avoid the parching sun. As the seasons revolve, he may employ literally a language much like that which WOLSEY uses metaphorically—

“ I am fallen into the sere, the yellow leaf.”

Upon the preceding principle, we easily perceive why those human beings, that are merely the creatures of impression, as savages and children, are incapable of insanity. There must be combinations of ideas, and the habit of combining. Otherwise the

delusive conceptions, lately exemplified, could not branch out to any length, and therefore could not maintain a footing for any time in the mind. Miss H. D. about 7 years of age, arrived from the East Indies, speaking scarce any thing but *Moors*, and, I believe, unacquainted with the letters of the alphabet, but quick and intelligent. I was desired to see her one day, when she complained in broken English that *a man had got into her stomach*. Her friends told me that this had been her complaint from the moment she appeared indisposed. I asked her how she knew that there was a man in her stomach. She said she was sure there was, because she felt him thumping very hard. Had the child harboured a previous train of superstitious ideas, ready to connect with this supposition, she might have run mad. The learned JURIEU, who wrote a commentary on the revelations, contracted, to a degree of severity, the ailments incident to sedentary scholars. The pains in his stomach gave him the idea of a hard substance pressing against it. And what should he take into his head, but that the beast of blasphemy, with seven heads and ten horns, and ten crowns upon the horns, had made good a lodgment within him? The same happens to

a multitude of poor ignorant creatures, who hear of possession by devils; and when they feel an involuntary twitch, think it is the finger of the devil.

It seems to be generally understood (for there must be always a great deal conventional or arbitrary in the designation of a person as insane) that the duration of the delusion is an essential circumstance. Pending the bills, framed by two noted statesmen for placing a gag in the mouth of the English nation, I was desired to see a gentleman, whose discourse alarmed his family. He had been out in his carriage. A momentary qualm had come over him. On returning home, he spoke of having just seen persons, known to be at a distance, and mentioned occurrences as the news of the day, none of which could have happened. He appeared to read a paragraph out of the *Star*, announcing the appointment of the Duke of BEDFORD to the treasury, and of Mr. Fox to a secretaryship of State. He glanced over the debates, and when he came to the division at the end, pointed with his finger to the ministerial numbers as a small minority, though, as is well known, exactly the reverse was the case. But this was not a common blunder. He did not mistake one side for the other; but it



was, on both sides, a substitution of numbers quite different from those stated in the newspaper, upon which nevertheless his eyes were intensely fixed.—The patient, it should be observed, was a quiet character and a calm politician. He had no fever, pain or other ailment. He eat and drank precisely as before; and his insanity disappeared in a couple of days without ever returning.

Exactly the same association, coalescence, or if you please, confounding of vivid ideas with impressions, arises from the same cause in fixed derangement. A lunatic, who was guarded at home, having by means of the servant got possession of a novel, set to read it with the utmost volubility, substituting the names of acquaintances for those of the author's characters, and dexterously interweaving foreign circumstances with the narrative.—Foreign feelings intruded as well as foreign ideas. For passages, not in the least pathetic, made this patient shed tears plentifully—a distinct indication of sensibility in excess. Just so do the other circumstances confirm the opinion that ideas crowd upon the mind more in this than in the sane state. These particulars add force to the positive testimony before referred to concerning the resemblance between an insane paroxysm and

a dream. Indeed I can imagine no difference in the state of mind except it be the short continuance of the delusion in one case.—In attending a patient in a fit of the gout, I found one morning that he had awakened with new inflammation in his feet. He told me that his sleep had been much disturbed, and that he had dreamed, among other things, of the apothecary's putting fetters on his legs. He resisted, while it was doing, but in vain. He then insisted, with a cocked pistol in his hand, upon the removal of the fetters; and shot the apothecary dead because he refused.—A female had felt deep and frequent chagrin, because her marriage had been unproductive of children. She became lunatic. Once, while under confinement, she made unusually violent resistance to an attempt to dress her, at the same time screaming and exhibiting a degree of terror unknown before. The catamenia had just begun to flow. They probably flowed with pain. At least, it clearly appeared that she believed herself at the moment in a parturient state. Her medical superintendant, who was accustomed to act as accoucheur, thinks she suffered full as much as if she had in reality had labour-pains!—In these two cases, we find exactly the same sort of superstructure,

raised by the imagination upon a painful feeling—the same spirit of resistance—*i. e.* the same efforts of volition precisely.

Considering this analogy, and the power of sleep to foster nervous complaints and to bring on their paroxysms, I have frequently endeavoured to learn, whether dreams are not sometimes continued without a break into insanity, and whether they do not increase the susceptibility to its exciting causes. My enquiries have seldom been satisfactorily answered.\* Dr. PINEL, however, in his

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\* The authority of observant persons, having the superintendence of lunatics must be great, but there are considerations, which limit it. To the excentric movements of these animated machines, they are constant witnesses, and must therefore be good judges of their range. But does it follow that they must be equally well acquainted with their interior structure? In a madhouse at least, they can hardly gain this knowledge. The machine was laid together and mounted before its introduction there. It is one thing to behold the Nile foam down its cataracts, and spread over the face of Egypt; another to possess the secret of its springs. And those who have been most familiar with adult madness have, I believe, often failed to study it in nascent state. In the heat and bustle of their own occupations, they sometimes consider the close study of the human mind, concerning which every man of education gets a few random notions, as an occupation too retired, and too much in the shade for them; nay, one finds them disclaiming metaphysics, or professing an intention of dis-

lately published collection of facts (which, though of a gross character, will perhaps retain their value longer than many attempts at a subtler investigation of the subject) has a passage pretty much in point. "It is," he says, "extatic visions during the night that often form the prelude to the fits of maniacal devotion. It is also sometimes by enchanting dreams and a supposed apparition of the beloved object that madness from love breaks out with fury, after longer or shorter intervals of reason and tranquillity."—(*sur la manie*, p. 18. *Paris* 1801.) For the reception of so sudden a passion as that of Romeo and Juliet for each other, the heart is, I suppose, most effectually opened by nocturnal visions or day dreams. The author

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patching this part of the subject as soon as possible. That is, they desire to forego the consideration of the essence of the thing, and to play idly about its accessories and accidents. The sane and insane mind are made up of the same stuff. A change in the hues and arrangement of their materials is the sole difference. Upon the knowledge of this change, it is probable that the power of preventing and correcting it greatly depend. The management of the insane, as far as one can judge from books, goes on too much in the gross; and without the insight to be obtained from the study I recommend, it is not easy to say how it can be more nicely adapted to the exigencies of individuals.



of Oberon and other poets, as also novelists, if their authority be worth any thing, may be quoted in favour of this doctrine.

I have met with a few instances, from which it appeared that dreams have a real influence in disposing to insanity. The following may serve as an example. A pregnant lady in the East Indies had a frightful dream, of which the day of judgment was the subject. Very soon after waking, while her nerves were still agitated by the nocturnal images, there came on one of the violent thunder-storms, usual in those climates. This recalled her scarcely dissipated delusion; and it continued for several hours. A miscarriage was the consequence; and her health received a rude shock, which it had not recovered many years afterwards when she became my patient, though she was never afterwards subject to any thing like insanity.

These facts would appear to admit of some useful application. Where we observe the constitutional tokens, above enumerated, with or without a family disposition to insanity, the hints thrown out in the former part of this essay, respecting the means of securing placid sleep, should be attended to and improved upon. A knowledge should be obtained of the nights, passed by persons for

whom there are such grounds of apprehension. Their state during the days, succeeding unpleasant dreams, should be noted. On the accession of any suspicious appearances, they should be put on an abstemious diet, carried to fresh scenes, have blood taken from the head, and diligently pursue such a course of medicine as their symptoms may seem to require. A plan that succeeds but now and then in confirmed insanity would be more certainly followed by the desired consequence, if carried into effect as it is coming on. It is of much importance therefore to be put into a method of recognizing it on its first approach.

I consider delirium as having just the same relation to insanity that dreams have, that is, as being undistinguishable while it lasts. Delirium seems too to have much the same varieties. It is sometimes fierce; sometimes gentle and communicative; at others, close and solely intent upon its passing pageants. An attempt has been lately made to distinguish delirium by the absence of voluntary exertion\*. But in

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\* “ The ideas in delirium consist of those excited by the  
 “ sensation of pleasure or pain that precedes, and the trains  
 “ of other ideas, associated with these; and not of those  
 “ excited by external irritations or by voluntary exertion.

attending to persons, affected with delusions of sense in febrile and common nervous affections, all gradations from rambling of the thoughts without exertion to intentional violence, may sometimes be observed in the same patient, during the same attack, and in the course of the same day. And quiescent delirium passes through incompleat delirium (or that attended with weak voluntary efforts), by imperceptible shades up to full insanity, according to the definition in question.

The best account of a delirium, with which I am acquainted, is one given by a physician in his own case (*Moritz. Erfahrungs-seelen-kunde*, I. 3. 44.) No medical attendant or philosophical spectator could so compleatly have delineated the various busy scenes represented before the mind. From the following short

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“ Hence the patients do not know the room which they  
 “ inhabit, or the people which surround them; nor have  
 “ they any voluntary exertion, *where the delirium is com-*  
 “ *pleat*: so that their efforts in walking about a room, or  
 “ rising from their bed are unsteady, and produced by their  
 “ catenations with the immediate affections of pleasure or  
 “ pain. By the above circumstances, delirium is distin-  
 “ guished from madness, in which the patients well know  
 “ the persons of their acquaintance, and the place where  
 “ they are; and perform all the voluntary actions with  
 “ steadiness and determination.” (*Zoonomia*, Vol. III.  
 3vo. ed. p. 495.

extract, it will appear that the varieties of steady determination of the will and passive delirious reverie succeeded each other so rapidly, and were so connected with the same disease, as not to leave any room for discriminating these affections as heterogeneous. And I fear no doctrine can stand on the slippery distinction between diseases of sensation, and diseases of volition.

The writer of the account, while ill of a low fever, had been removed into an apartment different from that in which he usually slept. The phantasy that persecuted him most was his inability to persuade himself that he was in his own house at all. The pain of this persuasion excited continual efforts and trains of thought. He seemed transported from street to street; and his imagination was active enough, to exhibit to him every moment, some different public place, in which his guards detained him on my bed. "I almost continually supplicated," says the author—and let the reader mark the steadiness of the wish, and the repetition of voluntary exertions of the voice—"I almost continually supplicated to be only carried to my house in *Holy-Ghost-Street*."—The persons about him, in endeavouring to pacify him without complying with his wishes, did but confirm the delusion under which he laboured.



Their cry was—*it shall be done in a few hours—or early to-morrow, as it is now night.* He lay pining in vain for the end of these few hours : and all the time his fancy created places, not the most agreeable, for his residence. Sometimes it pitched him between two walls, so close that he could not heave an arm ; sometimes on a burial-ground ; sometimes on the court before the hospital he attended. All the arguments of his friends availed nothing to prove to him that he was really in his own room. When they pointed out to him his own books, close beside which he lay, or the prints that hung opposite, he took it for a trick. Sometimes he did not recognize them for his own ; and sometimes he conceived they had been removed to his present place of abode.—In these observations, we perceive the very nimbleness of wit, so conspicuous in confessed lunatics.—Of the effect of accidental irritations of the senses, he observes that a postilion's horn, or even the watchman, would transport him to a public place, filled with music and dancing—the neighing of a horse in the street, to a stable—the bad smell of his perspiration, or the blood coagulated in his nostrils, to a burying-ground.—When the physician in attendance consented to his removal into the wished for apartment, on the score of there being nothing to lose,

his whole internal feelings underwent an instantaneous revolution. Though he had lain for days and nights without sleep, raving, supplicating, and complaining, a placid sleep, the forerunner of a rapid recovery, overtook him in ten minutes !

It was another conceit that he was hated and deserted by the whole world—that all his friends had forsaken and his patients renounced him. The foundation of fact on which this superstructure of despondency was raised, he takes to be his missing three of his most intimate friends, who were absent or incapable of attending upon him. He adds to this a mistrust towards mankind, which his friends told him they had observed in his health. The number of unpleasant things he experienced from those about him, such as their refusal to let him quit his bed, forcing him to take medicines, applying blisters, must have added force to the sentiment.

What is strongly in point is this : “ my other  
 “ fancies were probably those most common in  
 “ every delirium. The flowers on my curtains and  
 “ tester I took for men in continual movement.  
 “ They all went towards the wall ; and as  
 “ there were none but my acquaintance, I  
 “ often joined them. We found ourselves in  
 “ large illuminated subterraneous chambers,  
 “ where I learned such family secrets, as every

“ man in the world above, keeps close locked  
“ up in the recesses of his bosom. Once I really  
“ called my wife to my bed-side, and told her  
“ a shocking transaction, involving two of  
“ our friends, which I had learned in these  
“ subterraneous assemblies. I related the story  
“ with so much consistency and gave it such  
“ an air of probability, as to make her take it  
“ for a real fact, which I must have known  
“ before my illness.”

It is well understood that delirium can frequently be arrested by words uttered in a loud voice, by the introduction of a new face, or any impression strong enough to supersede the imaginative ideas. Now this happens also in madness ; and the number of authentic cases, in which a cure has been thus effected, may justify a suspicion that it is an expedient not often enough resorted to. In the minute journal above mentioned as being in my possession, I find an incident, which shews the power of new and striking objects in suspending confirmed and obstinate lunacy. The patient was to be removed, through a succession of very rugged and beautiful landscapes, to another habitation. The measure occasioned great agitation ; at first, a refusal and afterwards alarming suspicions. Awe of the medical

superintendent made the countenance appear strangely at variance with the eyes, “ the former  
 “ shewing a forced calmness, induced by the  
 “ seriousness of my observations, and the latter  
 “ a wild anxiety, demonstrative of the emo-  
 “ tions, which in fact agitated the patient’s  
 “ mind.” Minute examination of the open sedan chair first—then of the chairmen with reference to the medical superintendent, as if they were in league, and denunciation of the latter as a conspirator against the state, were some of the extravagancies that preceded the departure. The first part of the road led through an inhabited spot ; and here frequent efforts towards calling upon the passengers for assistance, with orders to the chairmen to stop, are noted down. Next, the scenery at the foot of an ascent drew attention ; but this alternated with wildness. The ascent led to immense precipices, when the patient called on the medical superintendent, notwithstanding the aversion he was held in, to walk beside the chair. The supposed danger being passed, the wildness returned. The party soon arrived at an artificial lawn encompassed by woods. Here the invalid familiarly asked the superintendent for his pencil and a card, to sketch the surrounding beauties of the landscape. No sooner was the request complied with, than an instantaneous change



was remarked from serenity to great liveliness of countenance, with somewhat of a satirical cast. The eyes were, in fact, rivetted upon a human figure, bearing an umbrella before the sedan. The patient laughed heartily, and when the merry fit was a little over, committed to the card an admirable likeness of this figure ; with its long bearded chin, hooked nose, and diminutive fiery eyes.\*

I know not whether it will be thought to shew an affinity between the two affections, that fever, particularly where accompanied with

\* It is probable enough that the patient could not have managed the pencil so well in the state of sanity. Thus, there are satisfactory testimonies of intellectual difficulties surmounted in dreams, which had baffled every waking effort.

The late professor WAEHNER of Goettingen, used to relate that in his youth, he had to put a thought into a greek couplet ; he tried for two whole days, but in vain. One evening, he goes to bed on the eve of fruitless efforts. In the night, he rings for his attendant, asks for paper, pen, ink, and a light, writes down the two verses, which he had sought and found in his sleep. On awaking, without recollecting the least of what had passed, he sets again to his task, but still without success, gets up chagrined and finds a very happy couplet under his own hand on his desk. Upon learning from the attendant what had happened, he could not call back the least trace of it.—Chiarugi speaks of a maniacal patient, of his who, without instruction, carved admirably natural figures in wood.

delirium is one of the best ascertained causes of insanity, (Mr. *Haslam*, p. 99.)

The doctrine, constituting an exalted imagination the fundamental circumstance in lunacy, is disputed by a person, whose attention to the disorder seems equal to the advantages of his situation. A short examination of the objection may throw light on the whole subject.\* The intelligent reader will probably

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\* “ If the disease consisted in the strength of imagination, the imagination ought to be equally strong upon all subjects, which upon accurate observation is not found to be the case. Had Dr. MEAD stated that together with this increased strength of imagination, there existed an enfeebled state of the judgment, his definition would have been more correct. The strength or increase of any power of the mind cannot constitute a disease of it: strength of memory has never been suspected to produce derangement of intellect: neither is it conceived that great vigour of judgment can operate in that manner: on the contrary, it will be readily granted that imbecility of memory must create confusion by obstructing the action of the other powers of the mind; and that if the judgment be impaired, a man must necessarily speak, and generally act,” [what is speaking but acting?] “ in a very incorrect and ridiculous manner.” (*Mr. Haslam*, p. 2.) Mr. H’s definition of insanity runs thus—“ an incorrect association of familiar ideas, which is independent of the prejudices of education, and is always accompanied with implicit belief, and generally with either violent or depressing passions.”

1. The word *incorrect* is as vague as *insane*. 2. The ideas

wonder to find it asserted that the increased force of a faculty cannot constitute a disease of the mind. To me it seems self-evident that the very belief in things unseen as seen, expressed in the objector's own definition, must be followed by mental disease. What ! when the force of association lays an imaginary eruption upon the clear skin of a person, afraid of the itch, is it not all over with judgment and discrimination ? Can the mad lover be less bewildered, who beholds his mistress in every female form he sees ? How is it possible any judgment can consist with so busy a fancy ? And what can be the fidelity of memory in that man, who is persuaded that incidents, of which he has only heard or read, have befallen himself ? Neither do I perceive why the imagination, if strong as to some ideas, must be universally strong. If the memory may be

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are often not familiar, till familiarized by the workings of the mind, that generate insanity. I shall mention instances below. 3. What is *education* ? Ideas early acquired often furnish insanity with its delusions. Mr. H. mentions several patients, who said that they had seen the devil : and they described him as he stands figured in foolish books. Had they but believed that he was so formed, all might have been sound within. But carrying the idea up to the liveliness of an impression constituted lunacy. Whatever false notions be imbibed, whether as prejudices of education or otherwise, they do not impeach sanity, till exaggerated,

strong as to some ideas and weak as to others, why need it be otherwise with regard to the imagination, which is a full and vivid memory? Old people, we know, let slip the occurrences of yesterday, while they have a perfect recollection of those fifty years back. When the delirious vassal repeated the greek verses he had learned 30 years before with his lord, no other ideas of the same period recurred!—It is not necessary, for the present purpose, to annihilate these mental faculties, which they raise up, in mock majesty, to sway the thoughts for their little moment, and then to deliver the sceptre to a potentate as evanescent as themselves. But it is high time that the fiction were banished from philosophy. It was convenient enough that the modes of association, which take place most frequently, should have particular names. But to take these nominal for real essences, was the sure way to confound the whole doctrine of the intellect.

*Further Remarks on the*  
*TRANSITION to INSANITY.*

Injuries on the head, abscesses in the ear, habitual drunkenness, fevers; the cessation of natural secretions or artificial evacuations; large use of mercury, and palsy have



been recorded as the chief exciting causes of madness. Of 113 patients, concerning whom Dr. PINEL obtained accurate information, 34 were reduced to insanity by domestic chagrin, 24 by disappointment in love, 30 by the events of the revolution, 25 by terrific ideas of the next world. Indulgence of grief or of any other passion, affections sudden and violent, as fright or indignation, religious terrors are observed, in this country also, to be followed by the same effect. It is remarkable that the very moral or physical causes, as blows or panic fear, that sometimes occasion insanity in grown persons, at an inferior age bring on epilepsy, hysterics, nervous headaches, atrophy. Why blows on the head should give bolder relief and brighter colours to certain ideas, must remain a mystery, till we have facts enough to unite the physical and metaphysical phenomena of human nature into one consistent body of doctrine. It is easy to give an hypothetical explanation. The brain appears to be concerned in the reproduction of ideas. Any given groupe or train may be present or passing at the moment of the injury; and the structure of the organ may be so altered, as to raise them to the utmost distinctness. Other associated ideas, by the intervention of these, may acquire a connection with the morbid

actions of the brain. That frequent intoxication should, in the long run, produce a similar alteration of structure, will not surprize us, if we advert to the ordinary effects of drinking upon the head. Why a particular complexion should dispose to exaltation of ideas is likewise, at present, inexplicable. Do not states of distant parts, by sympathy, produce such changes in the brain, as to call up ideas vivid enough for madness? This may happen from a particular stroke of the heart, condition of the stomach, or tension of a remote fibre. And such exciting causes may be accompanied with obscure feelings, or none at all. Dr. DARWIN thinks a diseased liver occasions lunacy. It may be so: though both may arise from intemperance as a common cause. Nor need pain be at all concerned, as he thinks.

The action of the brain upon thoughts or impressions, and of these upon the brain, seems perfectly reciprocal. Just as in hypochondriasis, whatever lowers the spirits injures the stomach, and whatever injures the stomach, lowers the spirits. When disastrous intelligence oversets the reason, we have first the impressions on the hearing and sight, as raised by the written or spoken words and countenance; then the ideas connected with these words; lastly, the affection of the brain. This therefore one

would be inclined to set down as secondary, when moral causes do the mischief. The disorganization of the brain, as an important circumstance in madness, is controverted by some, and among others, by Dr. PINEL. But accurate observers, as Mr. HASLAM, have found the head of every patient they opened, manifestly altered in its structure. And Dr. PINEL's own remark that he has never found any thing within the skull, *except* what had equally occurred after death from epilepsy, apoplexy, fever and convulsions, is in confirmation. It would be too much to expect that so clumsy a tool as the scalpel should detect specific alterations, corresponding to these several affections.—Persons, little conversant in medical disquisition, may wonder how any lucid interval should occur under a permanent lesion of the brain. But this is perpetual in pathology. Neither a stone in the bladder, nor a carious tooth, always give pain; nor does the disorganized heart always palpitate. Some external influence seems necessary to induce that condition of the parts, in which they shall be morbidly irritable. It is scarce to be believed what a trifling cause will bring on a maniacal paroxysm. A patient seeing his own face in a looking-glass, shall first smirk, then make grimaces, next gesticulate, and, in a few minutes, arrive at full frenzy.

The consideration of moral causes of slow operation is the most curious as well as most useful in this whole enquiry. A medical person, not now living, who shewed manifest signs of derangement, told me that his ill success in his profession filled him, as may well be supposed, with anxiety for his own subsistence and that of his family. He would sit at home for hours ruminating; and when he found, day after day, no summons arrive, he would saunter abroad and occupy himself with a reverie of wishes. These wishes he would sometimes arrange into a climax of events, worthy of the glassman in the Spectator. At length, he would direct his footsteps homewards under a sort of persuasion that some person of consequence had actually sent, during his absence, to call him in. This is a state full as near insanity as sanity.

Madness perpetually realises the wonders of Ariosto's magic, and prepares palaces or dungeons for those, whom it possesses. A person under disappointment or chagrin, sets about to imagine by what possibilities he may be delivered from his perplexities. They return to his thoughts by day and by night, gathering more or less body according to the intensity of his feelings. At last, after a long struggle, Imagination obtains the



mastery compleatly, and ever afterwards she uses calamity as her hobby horse.

During grand political crises, when society is subverted from its foundations, insanity often takes this turn. The suddenness and magnitude of the events kindle the imagination. A total change of fortune irritates the feelings of those, who are plunged into the abyss of adversity. Grinding injustice draws forth all their indignation. No prospect of redress by ordinary means opening, they ponder upon extraordinary deliverances, till they are lost in the labyrinth of their own thoughts. For if hope deferred maketh the heart sick, hope extinguished maketh the head fanciful. In this, among other ways, does the revolution in France appear to have operated upon many intellects. It dethroned one monarch indeed, but it raised a multitude to the supreme power. Nay, the madhouses of France were peopled with gods as well as with kings. Three Louis XVI's. were seen together, disputing one another's pretensions. There were besides several kings of France, of Corsica, and other countries: there were sovereigns of the world, a Jesus Christ, a Mahomet, so many deities as to render it necessary to distinguish them by the place they came from, as the god of Lyons, the god of the Gironde.

Among a number of persons, struck with insanity, though some are seen to harbour pleasurable delusions; others, according to their character or previous habits of thought, fall into the contrary extreme. This unhappy change has been of late as largely exemplified in France as the preceding. The constant terror of the guillotine hung over some: others perpetually mourned, with aggravated ideal sorrow, in consequence of being deprived, by the military requisition, of their only child. The unfortunate father, from whom GARRICK caught the gestures and countenance of his LEAR, was probably of a temperament the reverse of sanguine, and little accustomed to the dreams of hope, even before his infant dropped out of his arms from the balcony into the street. So his imagination could but perpetually reproduce the scene in its original horrors. We know from the records of insanity that another parent of a disposition, previously more cheerful, might easily have mistaken a pillow for the child sleeping, after he had been dressed by the surgeons, and have kept eternal watch to prevent him from being disturbed by any noise.

It is no wonder that hypochondriacs, when the blue phantoms that flit at times before their fancy, become by degrees fixed and em-

bodied, should be apt to suffer from terrific illusions. Clerical insanity, I suppose, will generally be found to have begun in hypochondriasis. There is another class of persons, exceedingly subject to insanity, and to insanity of the painful sort. Go, for instance, to the scenes of trade at London or at Bristol. Among the faces that appear at high 'Change, mark those that bespeak the cares attendant upon wealth already accumulated; and those others, where an added air of wildness characterises the speculator, too much in haste to wait for the reward of regular industry, and burning to get rich by a lucky hit. Some of these men will grow mad enough to be watched at home or sent to a lunatic asylum, where they will be haunted by the fear of coming upon the parish. Many others just sufficiently mad to be only run miserable all the rest of their lives from similar apprehension. So that the thirst of gold seems to maintain its character throughout: and there may be difficulty in saying whether it most debases the soul in sanity or insanity.

The votaries of devotion of a gloomy character often lose their wits, and have the place supplied by depressing imaginations. A poor collier heard a field-preacher rave much about damnation. He immediately felt himself encompassed by the terrors of hell.

On a dreary winter's day, he was found more than half naked, squatting in the twilight of his chimney-corner. As the wind howled over the heath, "hark!" says he to a medical person, entering to inspect his situation, "there is the devil come to fetch me in his chariot. Did not you hear his horses neigh?" For keeping the intellects sound, or if it come to the worst, for merging them in cheerful madness, how much preferable is

A false religion, full of pomp and gold—  
to a religion full of damning dogmas, which must necessarily be false!

The reader will easily be able to carry on this method of considering the subject to love, anger, and other affections, productive of a permanent exaltation of the imagination. I shall only add here that by some unobserved physical cause, the feelings may first be rendered intense, and then any accidental ideas will be metamorphosed into imaginations. This will in part account for changes in the delusions of mad, as well as sometimes for madness itself.

### *PREVENTION.*

To preserve the human mind from the irregularities exemplified in this essay, in as far as they arise from moral or slowly operating



causes, would seem a task of the utmost simplicity; to restore its equipoise, when that is beginning to be lost from violent gusts of passion, by no means difficult.

The first great preservative of mental, as of bodily health, is active occupation. No species of nervous disorder easily fastens upon persons, who devote a part of their time to moderate labour. It should, at the same time, be diversified and enlivened by scientific explanations. For mere labour is not enough.—The uniform operations of ingenious artisans sometimes wear a track in the brain, along which the torrent of imagination rushes with destructive violence. Hence insane projects for producing the perpetual motion. The mischief might always be avoided by contriving channels in different directions: and not only would mischief be thus avoided, but the intellectual streams, which, when collected into a single body, do so much damage, would be beneficial from their division.

It is evident that many dangerous series of reveries must be prevented by combining the thoughts and actions in efforts to produce some useful or curious purpose. It would even appear that total aberrations of the understanding are most effectually corrected upon this principle. At Saragossa in Spain, there is

an hospital for the sick in general, and the insane of all countries. The patients of the latter class are divided early in the morning into parties, some of whom perform the menial offices of the house; others repair to shops, belonging to their respective trades. The majority are distributed, under the superintendence of their guards, through a large inclosure, where they are occupied in the works belonging to gardening and agriculture. Uniform experience is said to have proved the efficacy of these labours in reinstating reason in its seat. It is added that the nobles, who live in the same asylum, but in a state of idleness suitable to their rank, retain their lunacy and their privilege together, while their inferiors are restored to themselves and to society. (*Townshend's Travels; and Pinel, p. 226.*) If this be true, how shocking to think that, in other countries, lunatics are kept inactively moping, or left to torment themselves with hurtful agitations. Many of them are capable of feeling the full force of motives\*.

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\* The overthrow of popery in France overset the mind of a young man. After practising upon himself severities equal to those of the ancient anchorites, he renounced nourishment altogether. At the end of the fourth day, the keeper repaired to his cell with a vast apparatus of terror,

As manual occupation dissipates sadness and prevents the reveries, preliminary to derangement, so does temperance preserve the mind from dangerous intensity of feeling. Repeated drunkenness brings predisposed persons nearer and nearer to insanity; and the time comes at last, when the fire once kindled by intoxicating beverages, continues to blaze on without intermission. Thus, it is satisfactory to find that the same course of life, which is attended with most cheerfulness and self-enjoyment, affords the best security against the various disorders, that result from the power acquired by man in civilized society over external things, before he knew what his own nature (*faciat vel ferat*) can either do or bear.

But though what has been said of the maintenance of health in other cases applies, with full force, to the present subject, predisposition to insanity requires a peculiar discipline of the mind. I shall not repeat what a thousand moralists have said (and ABRAHAM TUCKER

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and laid food before him, threatening the utmost cruelty if he did not eat it before morning. He complied with the order; and during his convalescence confessed to Dr. PINEL that the most dreadful conflict had kept up for two hours between the fear of sufferings in this world and in the next.

under the name of SEARCH, more sensibly and practically than all) on restraining the passions. Let those who are interested draw all they can from this source. Only let them not follow bigots in *mortifying the inward man*. This error is calculated to multiply, not to diminish, the number of lunatics. Or what is worse, those who escape lunacy, will be wrought into hypocrites or fanatics.

In conformity, however, with an opinion I have expressed on many other occasions, I think there is much more safety in rational information, than in the most authoritative precepts or the most powerful appeals to the heart. I advise therefore that parents avail themselves of the facts dispersed through a multitude of publications, respecting the power of imagination. The facts I speak of are such as the testimony, upon which they rest, places beyond dispute. They are admitted as a common basis of speculation by writers on the mind, and are not therefore liable to the disreputable uncertainty of metaphysical opinions. It is too much to expect another Cervantes, capable of generalizing Don Quixote. Nor is it necessary. Plain narrative would suffice without distinguished dramatic powers. And



I know not how a greater service could be rendered to society than by merely making a judicious selection of such facts—from the first whims of caprice, up to the wildest ravings of amorous, avaricious, and religious insanity. Demonstrate to young persons, from their own feelings, how certain emotions affect the chest, and what sympathy there exists between the stomach and spirits. They will then know how to estimate those enthusiasts, who fancy the touch of God himself in every palpitation of the heart, and believe the glow after a good dinner to be a particular inspiration of the Holy Ghost. Whether the keepers of asylums for lunatics have availed themselves of the wise counsel of the author of *Zoonomia*—to force, by frequent repetition, upon the disordered mind rational ideas, exactly the reverse of those, by which they are disturbed, I am not informed. Every body knows that a dextrous method of holding up ridiculous opinions is frequently sufficient to occasion them to be renounced. And it is beyond a doubt that the same effect has been brought about by contrivances, adapted to the complexion of this and that variety of madness. So that we have proofs of the efficacy of the method in the two extremes of mental aberration.

tion, from which we may draw a favourable inference for the intermediate stages.

I believe that it will frequently be enough if a dextrous performer out-herod the very extravagancies of the patient, or take up others as similar as possible. SIMON MORIN was shamed out of the idea of his incorporation with Jesus Christ by the folly of another madman, who fancied himself God the Father. A person, who believed that he had been guillotined, and fitted with a wrong head, was cured by the following contrivance. A jocular convalescent in the Bicêtre manages to turn the conversation on the miracle of St. Denys, who carried his head under his arm, and kissed it as he walked along. The lunatic vehemently maintained the possibility of the fact, and appealed to his own case. His companion burst out into a loud laugh, and asked him in a tone of mockery : “ *Why how could St. Denys contrive to kiss his head. Was it with his heel, you fool?* ”—It is true that as you drive insanity out of one of its forts, it often retires to another. But there let it be attacked by the same arms. I perceive indeed that their use requires discretion, and that when one line of attack does not succeed, another must be tried. But none

ought to meddle with the mad, who have not discretion and genius into the bargain.

As reading occupies so much of modern life, it must be a great art to lead the inclinations towards proper books. It is easy to see in general that the volatile should be fixed by one sort, and the gloomy enlivened by another. Perhaps SHAKESPEARE himself, by the beautiful soliloquy, and indeed by the whole character, of his Hamlet, has established in many minds the *tædium vitæ*, when it otherwise would have been but a slight and floating listlessness. Feelings of every kind obtain a *settlement* in the breast by being associated with harmonious language and strong images.—The difficulty, as to a choice of authors, lies in stealing away the affections from writings, congenial to a dangerous habit of thought, and attaching them to those, least likely to please at first.

The doctrine that the knowledge of the excesses (*les ecarts*) of the imagination, is a preservative against them, might receive illustration from an enquiry into the reason *why so few great poets have run mad?* None perhaps have derived their insanity from their poetical vein. Is it not because those, that deserve the name of poets, must have a prac-

tical knowledge at least of the way, in which imagination is affected? They are therefore in the secret. They stand in the situation, in which we would wish to place those, who seem in most danger. They are not merely worked up by passion; but however much they may work themselves up, they have a goal in view, which hinders their thoughts from going astray past recal.

END OF ESSAY X.







*ESSAYS*  
ON  
THE MEANS  
OF  
AVOIDING  
HABITUAL SICKLINESS,  
AND  
PREMATURE MORTALITY.

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*ESSAY ELEVENTH.*

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Vol. III.

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Experiments (begun in France) and repeated at intervals during the last twenty years, and now following up with due diligence, seem to promise the extinction of the power of febrile contagion. - - - At Manchester, regulations improved from former practices and a variety of projects, have been attended with the most complete success. The observation of the propagation of fevers for years together makes one wish for an INSTITUTION like that which has been found necessary to stop the progress of conflagrations.

*Int. Lecture to an Anatom. course in 1797.*



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E S S A Y  
CONTAINING  
R E M A R K S  
ON  
MISCELLANEOUS TOPICS  
OF  
*PROPHYLACTIC MEDICINE.*

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N O T W I T H S T A N D I N G the discipline mankind receive from adversity, there is nothing they are so slow in learning, as how to direct their foresight, and portion out their cares properly. By a fatal and almost incorrigible propensity, the fruit of a perverse method of instruction, they come to overlook what touches them nearly, but embrace what is remote with all the ardour of the soul. We are, most of us, by ignorance what the Scribes and Pharisees were by hypocrisy. If *THEY paid tithe in mint and anise and cummin, but omitted the weightier matters of the law,* we are as assiduous about trifles and as negligent in essentials, though in the

trifles that equally attract us and in the essentials we equally overlook, the vicissitudes of fashion happen to be exemplified in a remarkable manner.

It may be shewn that this game of cross purposes is repeated in every part of life; but our infatuation of attachment is most conspicuous perhaps in the superlative anxiety we discover about some things touching health or existence, and in our carelessness respecting others. In a population of three, four, or five hundred thousand souls, it may be that a single individual is drowned under such circumstances as to be recoverable, if proper pains be taken to rekindle the vital spark. Now we do not harbour the same melancholy ideas with the ancient Greeks respecting the lot of those who perish without sepulture; and from the testimony of persons, who have been restored after various kinds of suffocation, there is nothing in this manner of dying which so very particularly calls for commiseration. Yet the infrequency of the accident has not prevented societies from being formed, in behalf of those whom it befalls. These societies emphatically style themselves *humane*, as if the recovery of the drowned was the paramount concern of humanity. Prizes are established, and solemnities celebrated every year with great

pomp. The fine arts assist in adding a charm to the institution; and the attention of whole nations is summoned to the proceedings; and whole nations obey the summons.

Again, let but a suspicious dog make his appearance, and a hue and cry shall instantly pervade whole cities and provinces. The magistracy shall issue ordinances suitable to the emergency, and the members of the medical faculty, instructions how to proceed for the preservation of persons who have the misfortune to be bitten. Without doubt, hydrophobia is infinitely more to be deprecated than drowning. But there is nothing in the symptoms of hydrophobia that ought to impress us with much more horror than dropsy of the chest, and many other disorders that daily invade our neighbours and relations, though they hardly excite a sensation beyond the precincts of the bedchamber, which is the scene of the fearful spectacle. Nor is there above *one* of our countrymen *in a million*, I presume, that annually falls a victim to hydrophobia. Assuredly both for the improvement of the art of physic, and for the sake of the suffering parties, I think every thing ought to be done to restore suspended animation, and to prevent and cure hydro-

phobia. But when one looks to the alarm and the sedulous precautions, to which these accidents (the one infrequent, the other certainly not so much to be deprecated on account of any concomitant suffering), give rise, and to the supineness of society as to others equalling or exceeding them in severity and infinitely more common, is there not cause for the reproach—*these ought ye to have done, and not to leave the others undone?*

There is a time in the progress of all nations, when the regular succession of events in the material world passes without notice, and nothing has power over attention in the heavens above but an eclipse, or on the ground below, but an earth-quake. The united labours of wise men among us, have gone far towards correcting this propensity to childish wonder, and depriving the prodigies of inanimate nature of their exclusive privilege to interest. A few unquestionable facts will enable us to judge how far this may be the case in what concerns us still more nearly.

There is reason to believe that in the opulent city, near which I write, not much less than two thousand persons suffered, in a single year of the late scarcity, from pestilential contagion, with little or no medical assistance, and certainly without



occasioning any public measures, for relieving the distress they felt, or repelling the danger that threatened others.\*

I had estimated the annual deaths from consumption in this island, at one hundred thousand. An intelligent writer has very lately calculated in the following manner.

“ If the importance of a disease be in proportion to the mortality, there is none so important in Great Britain and Ireland as the pulmonary consumption. It appears that not fewer than one fourth, or at least one fifth of the deaths of the inhabitants of London are occasioned by this malady ; that of 20,000 or 25,000, in the London bills of mortality, annually from 4000 to 5000 are in the class of consumptions. It is allowed that these bills do not comprehend more than half of the present inhabitants and that the whole number of them is about one million. Therefore 8000 to 10,000, perish annually here by this disease. If England and Wales only contain ten millions of persons, it follows then that 80,000 to 100,000 fall yearly victims to consumption.” (*Medical and*

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\* See a letter from the author to the Mayor of Bristol, on this shocking subject, reprinted in the Monthly Magazine.

*Surgical Review*, November 1802, p. 278.) Such statements cannot too often be placed before the public eye, because they may be expected, at last, to bring the public to bestow most pains in guarding against those evils, from which they suffer most. An excellent institution has lately been planned in London for investigating the nature and cure of cancers. But of what consequence is such an institution, relatively to one that should have for its object to ascertain the frequency of consumption, to solve the local and personal queries suggested by this disease, and, by uniting the authority of a body of medical men, to set the whole country on its guard against the sources of danger.\*

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\* In the prospectus of the cancer institution, it is very properly observed that “ it having pleased God that remedies  
 “ or methods of cure should be discovered for many diseases  
 “ that were once thought incurable, we ought to hope that  
 “ one may, at length be found out for CANCERS, and with  
 “ such hope, it is the duty of medical men to exert their facul-  
 “ ties for the investigation of the nature and cause of them,  
 “ and the discovery of some method or medicine, by which  
 “ they were not only to be relieved, but absolutely cured.”

By parity of reasoning, it is equally the duty of medical men, individually and in combination, to exert their faculties and opportunities for investigating the nature and causes of consumption. Nor ought they to relax, as long as one general fact on the subject is in obscurity, nor till all who

To eradicate the barbarous tendency to care only for what is extraordinary, and, as far as may lie in the power of an individual, to bring feeling to a conformity with interest, I have devoted nearly the whole of the preceding essays to the elucidation of the bad consequences, resulting from the continuance of mischievous practices. And it would, I believe, make a very trifling difference in the bills of mortality or in the sum total of human misery, if we thought nothing of the events, however melancholy each singly may be, which come upon us through *the visitation of God*, provided we were emancipated from such personal misfortunes, as can be immediately traced up to our own ignorance or folly. If then, we must make the option, let us take heed to our habits, and leave casualties to shift for themselves.

There are some disorders, heretofore generally referred to the class of *incidental*, as if they were the products of the seasons or the

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are exposed to the disease, are in possession of the knowledge, by which they may be preserved. If any new spur is wanting to our exertions on the subject of cancers, by what argument, I wonder, can it be shewn to be less necessary in respect to consumption? Is it because for every one, destroyed by cancer, a hundred are destroyed by consumption?

effects of causes out of the reach of human prevention, which for their extensive prevalence would deserve not to be passed over in a work on preventive medicine. But the more they have been studied, the less have they been found entitled to be considered in this view. They have therefore a double claim to attention in the present series of tracts. One of the most frequent of these is the disease called

### *CHOLERA.*

It has been before stated that the liver is apt to be dangerously affected by imprudent exposure to the sun in hot climates. The summer warmth of our own climate is observed to dispose the liver to throw out its bile in excessive quantity. In consequence a complaint is formed, which is observed by physicians to mark the decline of the hot season, as faithfully as the appearance of the swallow announces the spring : and it is a complaint, sudden and distressing enough in its progress, and dangerous enough in its issue to be worthy of general attention. Its most striking symptom is a violent and repeated evacuation of a bilious fluid both upwards and downwards. But as in all con-



siderable affections of the digestive organs, so in this, it is very little probable that the liver alone suffers. The stomach joins in an inordinate secretion of its juices, and has an impatience of its contents, which it would not shew in other circumstances, could the same materials be introduced without exciting disgust. The tract of intestines, situated below the point where the bile enters, are in the same irritable plight. No sooner are the one or the other touched by any of the bland warm liquids, which form a part of our ordinary diet, than the stomach is thrown into the action that occasions vehement vomiting, and the bowels into that, which attends purging. At the same time, the rapid manner in which the whole surface of these cavities secretes the liquids, that are proper to each, co-operates with the excitement of the liver, in exhausting the system.

When this complaint attacks in the most sudden and dangerous manner, formidable cramp in the stomach and cholicky pains are instantaneously felt, and there is a speedy puffing or enlargement of the belly, the skin of which is stretched like a drum. The patient is sensible of an extraordinary uneasiness or oppression in the pit of the stomach. The pulse becomes small, and often

extremely quick and irregular. The hands and feet grow as cold as ice. It is with the greatest difficulty they can be brought to their feeling by the application of heated bricks or similar contrivances. But the inside is proportionally hot, the stools and urine scalding. The evacuations in both directions go on without ceasing. There shall be a vomiting of bile with much straining every minute. The oppression, the nausea, the cramp and cholicky pains continue.

Under these violent symptoms, the strength declines with great rapidity. The pulse in a day's time comes to creep with a vermicular motion, instead of beating. The patient does not find a moment's repose. He has soon spasms in various external and internal parts. The sense of suffocation, that distressing sensation in the throat which just precedes vomiting, is here unusually severe. Swallowing is difficult or is totally impeded by a spasmodic contraction of the top of the œsophagus. The urine is suppressed. An unintermitting hiccup comes on, with a starting of the tendons or general convulsions. The patient falls into a state of unconsciousness and perishes as if from a stroke of apoplexy.

In weak people, without timely or proper

care, the pulse sinks early; spasms and faintings take place; the interior burns; the extremities feel stone-cold, which symptoms indicate an unfavourable issue.

Where the attack is so mild as to let the patient off with some hours' harrassing discharge of bile, and other painful accompaniments of this operation, and to leave him after a few days' exhaustion, it is severe enough to make any reasonable person take precautions against it. The precautions might be thought almost too simple to be named, if one did not regularly, every year, see a whole country down with sickness, for want of knowing or observing them; which is the more to regretted as they bring with them the most absolute security.

Tropical fevers are observed to seize particularly upon persons, newly arrived in the regions where it rages. In these diseases, an excessive stimulation of the liver and the allied organs seems to bear a considerable part. And it is probable that the susceptibility which living in a colder climate confers, may be removed by gradually lowering the diet, in approaching the tropical islands. It is certain that abstaining from intemperate indulgences at the close of our summer would soon occasion cholera to cease to be a general

disorder of that season. The stomach, it would seem, must in most cases be overloaded or offended before the irritation reaches the liver. In persons, particularly prone to an over-secretion of bile, sourness of the stomach will bring it on in more or less force, according to the susceptibility of the liver from the season or the constitution.

The stomach-complaints that plague children so much, and are accompanied by green stools, are among the examples of this position. Either by sympathy with the stomach, loaded with pap, biscuit, bread, or other fermentable materials, unfit for many young infants, or by actual contact between the soured mass and the mouth of the duct, a too great secretion of the gall follows; and acid eructations and purging afflict the little sufferer at the same time or in quick succession. So it is, in great measure, with more advanced patients, on a seizure of cholera, and indeed at other times with many, when the diseased affection of the digestive organs goes no farther than bilious vomiting. It is common enough for the first matter thrown up to be sufficiently acid to set the teeth on edge.

In the season of cholera, therefore, it is particularly expedient at breakfast to refrain



from laying much ascendent food upon the stomach. Those who have power enough over their habits to refrain from sugared tea, would do well to use a mixture of milk and soda-water or lime-water, with a sparing portion of bread.

The temptation of fruit after dinner is now particularly dangerous. Attacks of cholera arise from no cause more commonly than from a monstrous mixture of meat, bread, fruit and wine at dinner.

Things offensive in quantity as well as quality produce the same sort of evil. Vegetables to which the stomach has not been habituated, those generally less digestible, as cucumbers, or those unsuitable to particular constitutions, as onions frequently are, rich sauces eaten in profusion, and that almost indigestible material, old, decayed cheese, are very frequently in fault.

The contrast of temperature between the noons and nights of autumn, often brings into action that susceptibility of over-stimulation, which appears to be generated by the summer-heats. Hence it is so common to find a certain degree of imprudence in regimen, after wetting the feet, or exposure to the evening damps, followed by cholera, though a greater has been committed under

different circumstances with impunity. In winter both causes shall conspire without being followed by *this* bad consequence.

When oppression and distension of the stomach have come on, and there is reason from past experience or present feelings to suppose acidity, the mischief may often be stifled in its birth by draughts of alkaline water, by magnesia or other absorbent substances. But, in this case, great abstemiousness should be observed for many hours after—indeed absolute fasting, if the party be robust; otherwise small supplies of food may be taken at intervals.

When the bilious vomiting or purging has come on with the internal heat, warm liquors as tea or water gruel, do but increase the evil. Till medical assistance be obtained, small and frequent draughts of cold water, or lemonade, or nitrous acid sufficiently diluted, will alleviate the symptoms. These liquids too have the advantage of allaying the harrassing thirst and clamminess of mouth.

Another thing too, which may be innocently practised, and which therefore should never be omitted to break the force of the attack, is to warm the extremities, if cold. It is not enough to expose the chilled parts, merely to warmth, but they should be

vigorously rubbed, and without too great tenderness for the invalid's feelings. It appears that the action, excited in the skin in this way, is in this case, as in others, much more beneficial than that which mere heat produces as usually applied.

*FAINTNESS, FEVERISHNESS.*

As during the peculiar susceptibility of one set of organs, dangerous or fatal attacks are thus liable to be incurred and thus easy to be avoided, so in all states of the system, and particularly in weak people, do very obvious oversights occasion the inconveniencies, named at the head of this section. Fatigue from travelling, or from long efforts of attention, especially with fasting, is one of the conditions under which they are most apt to occur. The fatal effects of too liberally feeding a person, who has remained without victuals for whole days and nights together, are very generally understood. But this is only an extreme case of the same kind. Persons, whose sensibility is too great and their muscular force too small, on coming off a journey into a warm room, or on taking too much food or liquids too

stimulating, will immediately fall into a swoon. It is a law of the animal œconomy that the substances which, in a certain portion, but just create a more vigorous feeling of existence, will in an increased dose induce feverishness or instantaneous diminution or suspension of the vital powers or death itself. Drinking—in different quantities from a glass of rum or brandy diluted to a whole bottle pure—will produce these several degrees of affection. So also will applying solutions of opium of various strength to the inside of the heart of a frog, make it contract with more apparent vigour, or destroy its contractility in the twinkling of an eye. But the operation of these powers is in proportion to the capacity of the subject, to whom they are applied. A patient, weakened by much confinement, from fever for example, shall find the free air reviving. To another patient, weakened by long continuance of sea scurvy, the same shall be a deadly poison; if that term may be applied to a substance that kills on being respired. Therefore of a mixed party of people, who have travelled an equal distance and fasted for the same space of time, a warm room and a good dinner shall produce downright fainting in some of the females, and only



oppression or physical anxiety in the others, and violent flushing of the face with general heat in stout men. Fainting depends on the contractile powers of the heart and arteries being either greatly impaired or altogether destroyed for a time. Flushing and general heat and the quick and bounding pulse, which may always, on such occasions, be detected on examination, evidently depend on the very opposite states of the whole or a part of the same organs. Both the one, therefore, and the other, may be avoided by attending to two things. It follows, in the first place, that we should be cautious, in proportion to the readiness with which our organs may be overpowered by ordinary or extraordinary agents, of suffering them to fall into a state of exhaustion. Hence the propriety of the rule, of late so frequently repeated by medical writers, not to fast too long in a state of convalescence or of debility from any cause whatever. Hence we see how it happens that people, impaired by too free use of wine, or by any species of debauchery, are often so extremely injured by the sports of the field. The consequence of many a fox-chase must be greater liability to an attack of gout in the stomach, or at least, great increase of indigestion where that

troublesome affection has taken place. Sports of less severity are injurious to country gentlemen, as country gentlemen now frequently are even at the age of thirty. I shall say nothing of the injury from the heat from riding full speed, with chills between the acts of the chace.\* It is sufficient to observe that between inanition and exertion, the system is too much lowered at one time of the day, as if by way of preparation for being forced the more readily into as inordinate action by the carousal of the succeeding part. Hence, with some, life is a sort of quotidian ague. They have their long cold fit in the morning; and the long hot fit in the evening and through much of the night: and as an ague, strictly so called, if it hang on, will impair digestion and disorganize the liver, or otherwise undermine the constitution, just so will the above-described sporting ague. The mode of prevention results from the mere description of the complaint. I am told indeed that some of our Nimrods upon

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\* There are doubtless or there have been races of men to whom these chills and heats were as nothing, or perhaps wholesome variations. But I am to speak of my contemporaries, or, at least, of a part of my contemporaries. They are not made of such well-tempered metal. Nor has their nature that range of endurance.

the wane have felt out for themselves the propriety of carrying a sandwich into the field — The same ought to be done even by many of those whom we hear most loudly proclaiming the power of their stomach to stand the longest blockade from hunger. For their countenance and their own confessions if they are properly interrogated, and their whole habit, so flatly contradict the boast, that if the terms were not injurious, one might apply to them what Mr. POPE says of a well-known structure —

Where London's column, pointing to the skies,  
Like a tall bully, lifts the head and lies.

There is yet another simple observance which I would strongly recommend ; and that is, when the hounds are at fault and the hunters find themselves heated by exertion, to dismount and walk till the scent is recovered ; as also, at the close of the chace, to provide for some additional cloathing, while their jaded steed bears them homewards as slowly as foot can fall. Indeed, earlier in the day, more cloathing would be frequently expedient. It is in vain for a man to vote himself hardy. Partaking in a diversion which requires hardihood will not confer that quality ; as seems to be sometimes supposed.

How bitterly do physicians see men who vainly presume upon their power to resist the cold and damp of our winter atmosphere, rue their error.

If, on some occasions in life, it is nearly impossible to help being put into the condition of too great susceptibility, we may still be able to escape the operation of too powerful agents. This therefore is the second thing to be held in view. Large fires, high dishes, even a full meal, wine and tea, will then induce in many people, a temporary fever. The delicate, and even the robust, will often be more refreshed, after fatigue, by a sparing portion of cold meat and a glass of plain water than by any of the seemingly more efficacious restoratives. One of the most eminent and able members of the surgical profession, lately mentioned to me an instance strongly in point. After attendance on a remarkably long trial in a crowded court of justice, he went to rest on a little bread and water. A great number of those who had been present on the same occasion, gave way to the eager call of their appetite: and to his certain knowledge he almost alone of his comrades arose refreshed and alert. A large proportion of the rest were all tormented with restlessness and debilitating heats. Some became seriously indisposed.



*FEBRILE CONTAGIOUS DISEASES.*

Whatever may be the extent to which treatises on fevers, comprehending the description and treatment, the varieties produced by climate and other topics generally run, the surest rules of prevention in our own country, with the reasons of those rules, will go into a narrow compass. The researches of the moderns have done much towards illustrating this part of medicine: and the better a doctrine is understood, the more concisely can it almost always be delivered.

The first position has long been established beyond controversy, though physicians are far from being agreed concerning the exact bounds to which it extends. *Certain disorders and fevers among others, are communicated by actual contact of the person labouring under them, and even by a near approach without actual contact.* This has always been a matter of fatal experience in the febrile disorders of our climate. Every body has seen how catching the measles are. Some parents have voluntarily exposed their children to the society of persons, infected with the small-pox; and the result has justified the principle,

whatever may be thought of this method of following it up into practice. A single visit, where any of the proper precautions are neglected, has sometimes been sufficient to infect physicians with the scarlet and low nervous fever. Medical practitioners, accustomed to visit the poor in their habitations, where *all* the proper precautions are apt to be neglected, have frequently fallen victims to febrile contagion. In this way, as I have been credibly informed, two young physicians of great promise have been cut off, within a short period, in the single town of Limerick in Ireland. "In Dr. HAYGARTH's letter," says Dr. STANGER, "nine physicians to hospitals " in London are enumerated, who have died " of contagious fevers. Out of the faculty " at large a greater number perish there " *annually* by this dreadful distemper." Some curious incidents shew that, other circumstances being alike, the infection will be in proportion to the nearness of approach. Thus it is stated by Dr. FENWICK, in a letter to Dr. CLARK of Newcastle upon Tyne, (who has lately exerted himself to promote an establishment for the recovery of poor fever-patients in that town, in a manner that will probably be beneficial to the kingdom at

large,\*) “that a beautiful girl being brought  
 “into the clinical ward of the hospital at  
 “Edinburgh, ill of typhus fever, some of  
 “the pupils were particularly attentive to  
 “her, and used to sit on her bed or loll on  
 “her pillow. The consequence of which  
 “was three of them were infected with the  
 “fever.”

*That the power of contagion to infect extends but a little way from the patient, in whom it is generated, when he is confined where the air has free entrance and egress, is now evinced by a vast multiplicity of observations on all the diseases that are propagated by contagion. The terrors of mankind have, in all ages disposed them to imagine that the whole atmosphere was pregnant with the seeds of the reigning malady, whatever might be its nature. Thus, it appears from the earlier treatises on that complaint, which America seems unjustly accused of having transmitted to Europe, that its exciting cause was believed to be disseminated through the surrounding medium; and, as by a scarcely*

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\* In his *collection of papers, intended to promote an institution, &c.* and the *appendix*. Newcastle, 1802. This is the most ample collection of testimonies ever brought together. I quote it freely, lest it should not be given to the public.

credible backwardness in the art of observing, the real method of its propagation continued long unascertained, it was held as no disgrace for nuns and popes to be sufferers from it. No wonder then, when the offending material is cognizable by none of the senses, and where, as is the case in some situations, it really passes from one person to another at a distance, that the same terrifying persuasion should have been harboured. The security derived to the Europeans in the Levant, from the practice of *shutting up* at the time of the prevalence of the plague failed for a long time to open our eyes to the grossness of this delusion. By degrees, the close attention, which practitioners of medicine have learned to pay to the phænomena, led them to perceive enough of the process of nature to dissipate the distressing apprehensions, transmitted to them from their forefathers. The more diligently the subject was investigated, the more confirmations were obtained of the narrow range of contagion. And now, almost every physician of an hospital and surgeon of a ship, emboldened to exert his faculties by the conviction that it is easy to keep clear of the contagious atmosphere, is able to adduce demonstrative facts.

Respecting the plague itself, Dr. GREGORY,



the present professor of the practice of physic at Edinburgh, has lately furnished the following particulars.\* He was informed, he says, by the Rev. Mr. CARLYLE, Arabic professor at Cambridge, who has resided at Constantinople, and had many opportunities of observing the plague, that it has scarcely ever been known to pass the narrowest streets and alleys—probably such as are not ten feet wide; and that people are safe in their own houses, while it rages in the opposite, owing to the diffusion of the effluvia in much air. Dr. RUSSEL prescribed from a window for patients, ill of the plague in the street below him at four feet distance, without receiving the smallest detriment, though on account of the tendency of the effluvia to ascend in the air, rarified by the heat of patient's bodies, that was the most dangerous position. But the second observation, communicated by Dr. GREGORY, is still more in point. Mr. TAINSH, late surgeon of the Theseus, when off the coast of Syria, in 1799, received on board Captain PHILIPPEAUX and four seamen, ill of the plague. The captain was placed in a cabin by himself. He rejected all medicines and died on the fourth day.

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\* Report of the Newcastle-upon-Tyne Committee. p. 4.

For the other four, Mr. TAINSH fitted up a birth, apart from the crew (consisting of upwards of 500 men), but with no better partition than painted canvas. He kept his four patients as cool and as clean as possible. One only died. But the crew totally escaped the infection, which but for so simple a precaution, would, as Dr. GREGORY observes, in all probability have destroyed one half of them.

Observations on the small-pox, which certainly ranks among our own most contagious disorders, will equally serve to demonstrate that the same security attends the same precautions, and that the contagion of this complaint does not fill the atmosphere even of a 64 gun-ship. On Christmas day, 1759, the Panther sailed for India with a crew of 420 men. Scarce had they lost sight of English land, when a feverish complaint appeared on board. It proved to be the small-pox. Within three days, 16 or 17 of the hands were attacked. Immediately on the appearance of the eruption, an enquiry was made, and it was discovered that less than half the crew, namely 193, had had the small-pox. The ventilators were kept at work from this time, night and day. Fresh air was allowed to pass through the ship

wherever admittance for it could be found. Fumigations were performed and the boy well washed with vinegar twice a week. Canvas was nailed up to divide the healthy from the sick, and wetted with vinegar. The seamen liable to the infection, slept in part upon the poop under an awning, and partly in other places as remote as possible from the infected.

By these simple means was contagion rendered perfectly inert; nor was a single additional person infected during the voyage. (*Dr. Clarke's appendix*, p. 25.)

A forcible proof of the circumscribed sphere of contagion, is deducible from the history of hospitals, in which there are distinct wards or rooms for the reception of patients, who apply for admission, when ill of contagious fever. Dr. JAMES HAMILTON, physician to the Edinburgh hospital, attests that since the appointment of separate wards for persons, labouring under fever, the communication of infection from those wards is unknown to him. The arrangement is of many years standing, and Dr. HAMILTON practised in the hospital before and since. (*Collection* p. 90.) Dr. RUTHERFORD adds that when low fevers infect the other parts of the hospital, they have not originated there, but been introduced. (*ib.* p. 91.) An

hospital was opened December 16th 1801, for the 4th regiment of dragoons, at Newcastle-upon-Tyne, at a time when a typhus fever of a very bad kind prevailed among the soldiers. One good airy room was set apart for fevers. The stair-case only separated this room from the entrance into the other wards, which were completely full. There have been, at one time, six patients extremely ill of typhus, and yet to the date of the report—July 1st, 1802—not one patient in the other wards was seized with any symptom of fever. (p. 111.) The work-house at Liverpool, in its general history, adds the greatest weight to the above position, while some particular fatal accidents demonstrate the danger of neglecting the due precautions. This building is so large as to have contained 1400 persons. Its fever-wards are situated in the third story: and in the next above is the nursery. The same stairs lead to both. A number of children are constantly playing upon these stairs and about the doors of the wards. Dr. CURRIE had the curiosity to follow a patient up into the ward. He counted exactly 83 children on the stairs. There was not one, by whom the patient did not pass within 3 or 4 feet; and to some he passed much nearer. When the circumstance



was mentioned to the nurses, they seemed to think it nothing uncommon; and the want of any actual proof or appearance of harm from the use of a common stair-case, with the prospect of a separate house for fever, rendered fruitless several consultations, respecting a distinct stair-case to the fever-wards.

The nurses live in these wards night and day, their apartment being in the centre between them, and open at top to the air of both. Several have caught the contagion at different times; but these have been nurses newly introduced; and they have seldom been affected above once; their constitutions acquiring, by habit, insensibility to the contagious impressions. Two of the present nurses have, each of them, a child living with them in this infected region, and going out to school by day. These children appear healthy, though they constantly sleep between the patients in either ward. Their mothers were satisfied that they were liable to no injury, as they never came into contact with the sick. They seemed to think that they should be themselves perfectly safe, were they not obliged to handle the sick, and immediately exposed to the contagious exhalations from their skin and lungs.

“Whatever,” says Dr. CURRIE, to his

correspondent, “may be your sentiments,  
“ respecting the narrowness of the sphere of  
“ contagion, you would not, I think, have  
“ ventured to predict so singular an exemp-  
“ tion from fever, under such circumstances.”  
For in the lock hospital, which is situated  
immediately below the fever-wards, there  
has been no fever since this disposition was  
adopted; that is, during ten years. Two  
years ago a very alarming fever broke out,  
and infected no less than 67 children. Luckily  
the source of the infection was clearly disco-  
vered; and the explanation not only clears  
away all doubt as to the inference deducible  
from the rest of the account, but furnishes  
an analogy which will extend to similar  
cases, where the origin of contagion, appear-  
ing on one or two occasions in situations  
generally exempt, remains in obscurity. “A  
“ family” says Dr. Bostock, “residing in  
“ a cellar in one of the most confined parts  
“ of the town, was sent in a state of fever  
“ to the workhouse. The parents were placed  
“ in the (fever) wards. But, by some ne-  
“ glect, the children were sent into the  
“ nursery, with some degree of the disease  
“ upon them, and without removing the  
“ infected clothes, which they had worn  
“ before they came into the house.”

Three other persons, (the master and mistress, and a young woman,) died of low fever in 1801. The young woman had, as it appeared on enquiry, been incautiously turning over the linen from the fever-wards before it had been steeped in water. The two other fatal accidents are thus accounted for.—The apartments of the master and mistress are so near the passage, at which all persons enter the workhouse, that the door of a coach, as it brings up a patient ill of fever, must open within a foot or two of the window. In 1801, typhus being extremely prevalent, “ there was an unusual pressure for admission into the fever-wards. They were “ filled beyond all former precedent, and “ many were obliged to be sent away. The “ examination of these unhappy persons in “ their unclean and contagious state, unwashed and unventilated, and the rejection “ of them, where necessary, devolved on the “ master and mistress—attentive and humane “ persons—who doubtless fell victims to this “ dangerous and painful duty. This is the “ opinion of their successors, who make a “ point of never approaching within a yard “ or two of suspected fevers, and have “ hitherto escaped. The porter, who has

“ opened and shut the passage-gate for  
“ several years has escaped also. He says  
“ he has used the same precaution, but he  
“ ascribes much of his safety to tobacco,  
“ which he chews in very large quantities.”  
(*ibid.* ps. 173—186.)

It is affirmed by Dr. CURRIE of Chester, that from the time of the opening of the fever-wards of the infirmary in that city, there never was, at any one time, reason to suspect the communication of contagion to patients in other parts of the house (*ibid.* p. 238); in this he is supported by Dr. HAYGARTH, who extends the term to nineteen years.

The preceding facts are corroborated by similar testimonies from a large proportion of the physicians in the kingdom, most conversant with febrile infection. Insomuch that the medical opposers of the fever-house, proposed to be placed near the Newcastle infirmary, “ had it not in their power to  
“ produce the authority of one modern physician of reputation in support of their  
“ opinions.” (Dr. CLARK, *Appendix*, p. 2.)

No considerate reader will require to have the cogency of such evidence pointed out to him at large. When he remembers that thousands of persons have lived under the



same roof in different hospitals with patients, ill of fever, it will strike him as impossible that the influence of contagion should not have reached them, if it extend so far as from one apartment to another adjacent. And yet among a number of medical practitioners, intent upon this very subject, no one has observed an instance of the kind, where proper measures were pursued. The few straggling instances, and these for the most part loosely reported, which seem to indicate the distant action of contagion, cannot be allowed to outweigh the vast mass of opposite evidence. For if it be difficult to prevent the introduction of gross prohibited wares into a territory, must it not be nearly impossible to guard all the abodes of the healthy and sick against a material too subtle to be an object of any of our senses, and at the same time so transportable, that it may be conveyed from place to place on the skirt of a coat, in a rag, a bit of lint, or a lock of wool! “Men” says Dr. FENWICK, “are  
 “often exposed to the near action of con-  
 “tagion without its being discovered; and if,  
 “under these circumstances, they are seized  
 “with fever, the disease may be readily at-  
 “tributed to some more distant exposure, of  
 “which they have been aware. I cannot illus-

“trate my meaning better than by a case,  
“which Mr. INGHAM read to the Special  
“Court on the 24th of June last. That gen-  
“tleman informed the governors (of the New-  
“castle Infirmary), that a person had caught  
“a fever by speaking to his servant (who had  
“lately recovered from one) in the open  
“air. A further enquiry has proved that  
“the person alluded to had been engaged in  
“a small room in paying several workmen,  
“many of whom resided in *Pipewellgate*—  
“where, at that time, a low fever was pre-  
“valent. In the same manner, where con-  
“tagion has been supposed to be conveyed  
“from one ship to another at a distance, a  
“full knowledge of all the circumstances  
“would probably shew that a more intimate  
“communication had taken place than that  
“which has been noticed. No attention or  
“sagacity can, at all times, detect such  
“mistakes, and it is therefore no impeach-  
“ment of the veracity or judgment of the  
“gentlemen, who give us these supposed  
“proofs, to consider them as inconclusive.”

Where therefore the examples are so rare as those of apparent infection from remote sources, no cautious reasoner would acquiesce in an affirmative conclusion, if there were no evidence on the other side. But when in

trials upon a large scale, and continued for years, contagion shews no power to strike far off, it follows that it can have no such power.

Of a truth, so essential to the consolation and security of society, there yet remain proofs, if possible, stronger still. Thus at St. Thomas's hospital in London, fever-patients are indiscriminately mixed with others, but the wards are kept as sweet as the apartments of a private house. Here, says Dr. BLANE, "there was no instance, "during the last ten years of my attendance, "of any medical gentleman, patient or nurse "having caught a fever—This was not the "case before proper means of cleanliness "and ventilation were adopted." (*appendix* p. 45.) In another place, the same physician relates that when infectious fevers occur in private families he constantly assures the family without having been once mistaken, that if perfect cleanliness and sweet air be maintained, there is no occasion to fear infection. (*Collection* p. 102.) Dr. WILLAN remarks that it is well ascertained by experience in many places that if there be no close intercourse, the most malignant fever may subsist in one chamber of a house without affecting any inhabitant of the other apartments—an observation he has made a

thousand times in the metropolis. (*ib.* p. 104.) Dr. JOHN HUNTER asserts that in several of the worst cases he has seen (some of which proved fatal) where the patients, being in better circumstances, were lodged in clean airy apartments, he has never known an instance of their infecting those about them; even when the patient was a married man, and his wife had slept in the same bed with him one or two nights after the commencement of the fever. In an hospital, in a ward of which there are patients, ill of this fever, provided it be well ventilated, the patients with other complaints, in the same ward, are seldom infected. It would appear that there is no great power of infection in the body *alone*, provided the air be not confined. The worst mode in which the poison can be applied seems to be by the apparel or bed-clothes of the sick. (*ib.* p. 234.)

DESGENETTES (*Hist. med. de l'armee d'orient.*) mentions a woman who, without detriment, travelled sixty leagues behind the carriage of the general in chief, between two patients ill of the plague.

“ Among the middle and higher ranks of  
“ society in Chester and its neighbourhood,  
“ during a period of 31 years, I scarcely recol-  
“ lect a single instance of the typhus fever



“ being communicated to a second person—  
 “ not even during the epidemics of 1783 and  
 “ 1786. Fresh air and cleanliness were the  
 “ only means employed to prevent infection.  
 (*Haygarth's Letter to Percival.*)

In a question of so great moment and of which the solution depends upon testimony, it appeared necessary to the satisfaction of the reader to bring forward a variety of witnesses. But these may suffice, when it is added that there is either a general concurrence or no contradiction, except on the part of a few opposers of the establishment of fever-wards, who have scarce succeeded in collecting any thing specious, and adduce still less from their own experience.

The reader may desire to know more precisely still the limits of contagion in ventilated places. But here we must be content with approximations. In the worst species, we may confidently believe that it does not extend a yard. Dr. C. à MERTENS physician to the foundling-hospital at Moscow, whose account of the plague in that city, I offered in vain when a student of medicine, to two London booksellers, in an English dress,\* estimate the infecting distance

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\* It has lately, I think been translated again, and published,

of patients in the plague at a foot or under, and is most fully aware that the contagion does not reside in the air.\* Dr. O'RYAN's interesting experiments shew that neither the matter of small-pox, nor a person in the eruptive fever of small-pox infect at the distance of half a yard.† Dr. HAYGARTH'S

unless the translation happens to be that left by me in the hands of the late Mr. MURRAY, of Fleet-street.

\* *Sola ægrotorum et rerum infectarum contactu communicabatur; atque atmosphaera contagium non spargebat, sed sanissima semper fuit. Visitando tam prope adstabamus illis ut sola pedis distantia inter nos et eos sæpe vix remaneret et absque alia quâcunque cautela quam quod nec corpus nec vestes aut lectum tangeremus, a peste immunes permanserimus. Linguam propius observando, solebam linteum aceto communi inbutum naribus et ore admoveere. (Observ. Vindobonæ. 1778.)* In a faithful history of modern attempts to ascertain the circumstances under which contagion is communicated, and to prevent infection, this physician would deserve an honourable place. Our late publications sometimes shew want of information, or a very narrow spirit of nationality.

‡ I impregnated with small-pox matter, a large ball of cotton, and placed it in the middle of an oval table, whose smaller diameter was a yard. I placed six children round the table, so that there was only half a yard distance from each of them to the infected cotton. Not one was infected on several trials, (*Dissertations sur les fièvres infectieuses.*) The experiment was repeated often within doors and without on the communication of the small-pox. The blood, mucus and tears of persons ill of measles, were similarly tried with the same result.

observations pretty nearly coincide with this result.\* Dr. CURRIE supposes that contagion, issuing from a person in low fever, may not infect at more than the distance of a few inches in free air.

The history of the communication of contagion in opposite circumstances is exactly the reverse. It is in the confined and filthy habitations of the poor, that the matter which excites low, putrid, nervous fever, is generated; and there, for want of free admission of the air, it is so certainly communicated, that wherever one inhabitant sickens, others catch the disease. With regard to this fact, there is a great consent among observers; and it has been estimated that every poor person ill of fever, infects two or three.

One or two examples will illustrate the production of contagion from filth and confinement. I choose first extreme cases, but the conclusion as I will afterwards prove, may be

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\* I found that the pernicious effects of the variolous matter were limited to a very narrow sphere. In the open air and in moderate cases, I discovered that the infectious distance does not exceed half a yard. Hence it is probable that, even when the distemper is malignant, the infectious influence extends but to a few yards from the poison. I soon also discovered that the contagion of fevers is confined to a narrower sphere. (*Letter to Dr. Percival*, p. 8.)

extended, in proportion, to others similar in kind, but varying in degree. It is evident that where sloth and want of cleanliness prevail on board a ship, there the effects resulting from these causes, whatever they may be, will be most strongly experienced. The two following relations strikingly confirm this reflection.

The Hankey sailed from England in 1792, with upwards of two hundred people on board, partly settlers for the island of Bulama off the coast of Africa. Both the settlers and the crew were healthy at the commencement of the voyage, nor is there any suspicion of injury from the exhalations of unhealthy ground. For reasons, which it is not necessary to repeat here, the whole number of persons carried out were obliged to live on board throughout the rainy season, when the heat is excessive. They endeavoured to shelter themselves in the best manner they could by changing the ship into a wooden house. Her sides were raised and she was covered with a roof. In so confined a situation, cleanliness was scarcely practicable; and sometime after their arrival, a dangerous fever broke out. The ship was navigated by twelve healthy seamen, then taken on board for the first time, from Bulama to Bissao; and before her return, nine of these died. Three fourths of those on board perished at Bulama.



With much difficulty, they made a passage to St. Jago, where they were furnished with four seamen, and with this help, proceeded to the West-Indies. The four new hands were all infected; two died and the others were put on shore at Grenada and St. Vincent's, in the most wretched state imaginable. On arriving at Port St. George in Grenada, no care was taken to sweeten or ventilate the vessel; nor were the clothes and bedding of those who had died on board, destroyed. In consequence, the fever, which proved one of the most fatal disorders upon record, gradually spread from the Hankey to other ships up the harbour, and thence gained the island. Of 500 sailors employed in the regular trade, the almost incredible proportion of 200 perished between the beginning of March and the end of May. Twenty-six out of twenty seven recruits, who joined the artillery in July, were infected; and twenty-one died. Nor was it till the close of 1796, that this malignant fever disappeared altogether. During the interval, it seems highly probable that it spread to other places.

In this case, there seem to be circumstances of peculiar aggravation, if the virulence of contagion be in proportion to the intensity of the generating causes. Let us, therefore, take a view of other ships under different circum-

stanees. “ Several ships, which had carried  
“ flax-seed to Ireland, returned in June and  
“ July to New-York, crowded with needy and  
“ wretched emigrants from that island. They  
“ were so thick between decks, that the air  
“ was deprived of its usual portion of oxygen,  
“ insomuch that on bringing the sick passengers  
“ to shore, the common pure atmosphere was  
“ too stimulant for their lungs ; and a number  
“ of them gasped in it, and died in a short  
“ time. There was so much animal excrement  
“ accumulated in one of the ships, that the  
“ American health-officer detained her at the  
“ quarantine ground, as poisonous and pes-  
“ tilential, and refused to let her come up to  
“ the city. By the pukings and purgings—  
“ by the urinary and perspiratory discharges  
“ of these miserable creatures, literally wallow-  
“ ing in their own filth, the bodies of many  
“ of them were besmeared and incrusted,  
“ forming a layer of excrementitious grime  
“ from head to foot. Their cloathing and  
“ their bedding were impregnated with as  
“ much of these excrementitious matters as  
“ they could wipe from the bodies of the  
“ passengers and absorb. With such coverings,  
“ vile, offensive and pestilential in the highest  
“ degree, were they surrounded. And these  
“ excrements, infesting every thing in the

“ neighbourhood of the sick, underwent the  
 “ usual chemical changes, in a heat nearly or  
 “ quite equal to the human body, and turned  
 “ to - - - some poisonous matter, which  
 “ forms the exciting cause of fever. Of the  
 “ fever so excited, between thirty and forty from  
 “ one ship, died in crossing the Atlantic - - -  
 “ The survivors arrived in a state of uncleanness,  
 “ sickness and want, seldom seen in America,  
 “ but among the emigrants from that unhappy  
 “ country, who make so large a number of the  
 “ poor in the American hospitals and alms-  
 “ houses. So thoroughly contaminated with  
 “ their own corrupting excretions, were the  
 “ clothes and beds of these sufferers, that  
 “ the - - - exhalations from them poisoned the  
 “ air of the Marine hospital on Staten island,  
 “ and the medical attendants and nurses  
 “ sickened in the discharge of their humane  
 “ attentions.” (*New-York Med. Repository.*  
 Vol. 1. p. 70.)

The following fact, which we owe to Dr.  
 ROLLO, is more analogous to what happens  
 in common life. “ One man of the horse  
 “ artillery was admitted into the hospital  
 “ with a suspicious fever, next day another.  
 “ This excited enquiry. It was found they  
 “ came from two different barrack-rooms.  
 “ These were followed by other men, in all

“ amounting to eight : three of whom came  
“ from a separate room ; the rest from the  
“ same rooms. The rooms were visited by  
“ the commanding officer. All the rooms,  
“ whence the infected men came, were  
“ found to have entirely different bedding  
“ from the rest of the barracks.—The horse  
“ artillery being a corps in constant readi-  
“ ness for service, and whose appointments  
“ were always complete, had for conve-  
“ nience of carriage hammock bedding. The  
“ hammocks were rolled up tightly every  
“ morning the moment the men rose ; and  
“ they were unloosed when they went into  
“ them at night.—At this time, we had had  
“ so much and so constant rain, that this  
“ bedding had not been aired or opened, for  
“ a single day, for at least two months. The  
“ hammocks, with their bedding, were ex-  
“ amined, and the moment they were opened  
“ a very peculiar nauseating smell was per-  
“ ceptible. Immediate steps were taken, and  
“ no further mischief took place. Here, an  
“ infectious fever evidently arose from the  
“ confinement of the effluvia of a man’s own  
“ person, in a term of about two months.”  
The measles and small-pox can almost always,  
directly or indirectly, be traced to persons  
who have had these distempers. But it is in



low fever in thousands of instances as above. The sickness of one patient cannot be traced to any sick predecessor. It is a strong confirmation of the independent production of this contagion, that similar fevers originate among animals closely crowded together, as among sheep and hogs on board ship. If pestilence follow famine with great regularity, it may be that the effluvia from an impoverished habit are more liable to the contagious fermentation, or that the debilitated are more readily infected by floating effluvia, or that famished human creatures have not spirit to keep themselves clean, and so filth accumulates unusually under distress. Though, "in ordinary times, we are assured that the lowest class do not put clean sheets on their beds thrice in the year; and that where no sheets are used, they never wash, or scour their blankets." (*Willan's reports*).

That intermittent and remittent fevers, in most cases, spring from marsh exhalations, the concurrence of innumerable observations compels us to believe. Though it be certain that other agents, as cold applied in a certain manner, will also produce perfect agues. But what substances precisely they are, which working together engender the noxious effluvia of marshy grounds, no in-

vestigation has yet gone near towards ascertaining. So it is with the poison that excites our continued fevers, commonly but perhaps not happily termed *low*, since their first stage is probably either violent stimulation, or that suppression of the powers, which is to stimulation what the effect of swallowing a prodigious quantity of diluted spirits at once, is to ordinary intoxication. This subtle and dangerous material appears to be oftenest formed when human beings are crowded together and covered or surrounded by filth. Observers have remarked with surprize that naked negroes, jammed close together during the middle passage, (as was the custom among the dealers in human flesh, when the slave-trade was carried on with all the inhumanity, of which the uncontrouled spirit of commerce is capable,) failed to produce it.

Agues prevail in spring and autumn. Malignant fevers have been often checked by great heat and cold. Can the fermentations, from which the *febri-facient* effluvia spring, proceed through a certain range of temperature only?

If we knew the nature of the process, we should at a glance see the shortest way how to prevent and stop it. If we knew the qualities of the product, we should have the same

advantage in setting about to change it. As the air has so much effect in rendering it innoxious, may one suppose it an oxydable substance? This would explain some of the phænomena better than any other conjecture. It would enable us to understand the security of a free atmosphere, and the danger from approaching patients in close rooms. Without this supposition, we may however distinguish the impropriety of the term *concentrated*, as applied to contagion in such situations. But by its help, the existence of it in its original state for want of the access of oxygen in the atmosphere surrounding the patient, and the danger of such an atmosphere become apparent. We can also better understand certain anomalies or extraordinary phænomena; and may also hope to reconcile the advocates for the narrow sphere of contagion in open places, and their opponents. When contagion settles on the clothes of a sick person, it probably assumes a more consolidated form than as it issues from the body:—in the latter it may be more expanded and more open to the action of the atmosphere. Many authors have observed that infection from clothes is more common than from contact or approach of the sick. But if the con-

tagion be more condensed in its state of adhesion to different substances, it becomes evident that it may be blown across a court of justice, unaltered and capable of infecting, though the rarer contagious halitus from a sick person cannot be transported in this manner. What dose of the poison is sufficient to infect has lately been brought into question, and even attempted to be determined by an ingenious writer, who yet confesses that "numerous examples - - - manifestly "prove that a short and probably a momentary exposure to contagion, in some instances excites a fever."—(*Dr. Haygarth's Letter to Dr. Percival*, p. 42.) But perhaps the variety of phænomena would be more easily understood from the decomposition or non-decomposition of the poison, as it is inhaled, and its incapacity to break the passing trains of action, before it is altered or the contrary.\*

It will be allowed in the present state of our knowledge as nothing improbable, that feбри-facient contagions consist of the same

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\* If one could make experiments on such a subject, one need not despair of exciting trains of action, capable of preventing the inoculation from small-pox or cow-pox taking effect.



elements in different proportion, or perhaps with a slight addition in some cases. The variation in the morbid effects bespeak a variation in the constitution of the poison, though it must not be forgotten that difference of susceptibility will create the greatest diversity of effects. How different is the small-pox in different individuals inoculated with the same lancet ! From a variety of observations, it would appear that the effluvia, which excite the small-pox, are much more widely diffused, other circumstances being equal, than those, from which our low fever springs. That is, according to the preceding supposition, they do not quite so readily combine with the oxygen of the atmosphere. It must not, in this place, be concealed that variolous matter in a liquid state does not soon lose its property of communicating the small-pox ; and in a dry state it is found to resist the full action of the atmosphere for a long time, certainly for a month. “ I have  
 “ tried” says Dr. CURRIE, “ whether vario-  
 “ lous matter, exposed to the air, and indeed  
 “ to the wind, can communicate the disease  
 “ by inoculation, and the result has been as  
 “ I expected. The disease was communi-  
 “ cated with the usual certainty and success.  
 “ I inoculated three patients at the same time.

“ in one the eruptive fever appeared on the  
“ fifth day; in another, on the seventh; and  
“ in the third, on the ninth. The matter  
“ was spread on the surface of a piece of  
“ window glass, and had been long perfectly  
“ dry. It was discoloured by some smoke  
“ and dust that the wind had blown over it.  
“ I diluted it, as our practice is, with a few  
“ drops of tepid water — — Next day, the  
“ glass was as dry as before, and the matter  
“ unchanged as to appearance. It now lies  
“ before me, and the eye can distinguish no  
“ diminution of quantity—So far as to facts.  
“ My opinion is, that I shall be able to ino-  
“ culate with the same matter diluted in the  
“ same way, many months or perhaps years  
“ hence.” These facts are not more un-  
favourable to the supposition that the air  
destroys contagion by acting as an oxyge-  
nant, than to any other hypothesis concern-  
ing its mode of operation. Where atmo-  
spheric air and acids perform a common  
office, we have few analogies, by which to  
conceive it, besides that of oxygenation.  
Marine acid may do this by the help of  
watry vapour. But whatever is the real alte-  
ration produced upon contagion, these rea-  
sonings will only require a change of terms.  
In all cases we must alike suppose that the

variolous effluvia, imbedded in purulent matter, are infinitely more protected from the action of the air, than as they issue from living surfaces. By an agent, much more powerful, under the present point of view, than atmospheric air, we know that liquid variolous matter may be very speedily deprived of its power to infect. Thus, Mr. CRUIKSHANK of Woolwich, in March 1795, took two portions of recent small-pox matter from the same person, and exposed one portion to oxygenated muriatic gas for a few minutes, and with it inoculated the left arms of three drummers, while the right arms were inoculated with some of the other portion. The punctures of the left arms had no marks of inflammation, except what simple puncture produces, and they entirely disappeared in a few days. But the right arms took on the variolous action, and in two of the persons there was a general eruption. The experiment, on repetition, was attended with the same result. (*Rollo on Diabetes, first ed. p. 61.*)

These experiments would probably have led, by analogy, to a method of destroying all sorts of febrile contagion, had not such a method been already discovered with regard to some. As it is, they admirably serve to remove any of those scruples, which might

have been left, where the infecting substance is not so palpable as variolous matter, and where, to common observers, the certainty of infection may not be deemed nearly so great as from the process of inoculation. Though in reality the contagion of typhus and of scarlet fever are as unfailing, when applied under favourable circumstances, as variolous matter, or variolous effluvia.

The series of observations, from which we seem entitled to draw the most important of all conclusions respecting the prevention of infection, viz. *that the contagion of low fever (and probably all contagions producing febrile disorders) may be destroyed in all their states by the fumes of some of the mineral acids; and that these fumes can be safely disseminated through the air of apartments, without removing the sick*, began with the celebrated chemist, M. de MORVEAU.

An attempt having been made to empty the vaults (*caves sepulchrales*) of the principal church of Dijon, there was discharged so great a quantity of putrid effluvia as to render it necessary to shut up the church; and it was the more urgent to destroy these effluvia in their source as they penetrated the neighbouring houses, where the symp-



toms of a contagious fever\* are said to have appeared. After the vain trial of various perfumes, fumigations with aromatic vinegar, and the detonation of salt-petre, M. de MORVEAU put six pounds of kitchen salt, a little moist, into a common garden bell, imbedded in a pot full of cold ashes, and placed it over a large chafing-dish. Upon the salt he poured two pounds of oil of vitriol and immediately quitted the church, the doors of which were shut. Next day the church was found perfectly sweet; and every one who entered it declared with astonishment that he should not have entertained a suspicion of its having been so lately filled with foul effluvia. Mr. MORVEAU was induced to use marine acid on account of its expansibility and of the striking manner, in which it unites to the fumes of volatile alkali. He remarks that the nitrous acid would have been more powerful than the detonation of nitre.† But in these first observations, as also

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\* L'acide du nitre seroit plus puissant — — — Pour purifier une masse d'air, il n'y a point une voie plus courte et plus sûre que de lâcher une acide, qui s'elevant et occupant tout l'espace, &c. &c.

† L'air surchargé d'exhalaisons putrides d'une odeur très-infecte, avoit causé a plusieurs personnes une mort prompte, à d'autres des maladies putrides dont elles moururent en peu de jours.

in his late work, he appears to have confounded two things essentially distinct; the offensive vapours that may accompany contagious effluvia, and these effluvia themselves, which have undoubtedly no odour, nor any quality by which they manifest themselves to the senses. This first experiment therefore could only be considered as a hopeful beginning.

In the same year, however, one of those fatal pestilences, known under the name of the *jail-fever*, broke out at Dijon; and the same method of purification was here executed with success. Notices of these transactions were published in the *Philosophical Journal*, which enjoyed the most extensive circulation in Europe (*Rozier, Observations sur la Physique*); and immediately afterwards popular publications by persons of the first intelligence and weight in France, recommended this method as alone to be depended upon for destroying the contagion both of the murrain among cattle and of low fever. In 1780, the Academy of Sciences being consulted by the late French government concerning the means of destroying infection in the gaols, appointed a committee for the purpose, on which stands the great name of LAYOISIER. By this committee, the acid

vapours were also pointed out as more to be depended upon than any thing else (*See Morveau des moyens de prevenir la contagion 1801, or the English translation by Dr. Hall.*) But it does not appear that the extrication of acid fumes was precisely mentioned as an expedient that could safely be practised in inhabited rooms in any publication before 1794, when it was done in the most express terms by the French counsel of health, and enjoined, though ineffectually, under the most binding sanctions, by the legislature.—Two years before, the oxygenated marine acid was stated to be used in dissecting-rooms for destroying putrid smells.

At a later period the marine or oxygenated marine acid fumigations, have been practised with success in France, in Spain, and in our own admirably conducted military hospital at Woolwich.

In 1795, Dr. J. C. SMITH, proposed the fumes of nitrous acid for the destruction of contagion, and in the year following, a set of experiments conducted on ship-board, upon a very large scale, demonstrated the efficacy of the measure. On board the Union hospital ship, where a very fatal infectious fever was raging, not one of the crew was seized after the commencement of the fumigations. It is

hardly necessary to except one of the attendants, who had a slight relapse, in consequence of his own imprudence. Similar success so distinctly attended the experiment on board some of the Russian ships, that the admiral himself applied for a fresh stock of the materials, to be used on board the rest of that fleet. All these experiments, taken together, supply the only proof of the destruction of contagion, of which the nature of the subject admits. It is not the disappearance of any odour, upon which we can place the smallest reliance. The decisive fact is the immediate cessation of infection after the fumigations, without any other change in the circumstances, under which it was taking place.

The efficacy both of nitrous and marine acid fumigations being allowed, it becomes a question which of the two is preferable, in general or on given occasions. Mr. MORVEAU has raised two objections to those by nitrous acid. He endeavours to shew by experiment, that the vapours of nitrous acid deprive that portion of the atmosphere, through which they are diffused, of part of its oxygen, and that they have less expansive force. It has been shewn at large by Dr. ODIER of Geneva, that the first objection is groundless, the appearances by which it was suggested having solely arisen



from Mr. MORVEAU'S defective manner of operating. The second objection is well founded in the abstract, but does not apply to the purpose in debate. The nitrous acid vapours are proved by the common process for distilling nitrous acid to be condensable without water, while those of the marine acid are not. The latter therefore will continue longer afloat and spread further. This, other things being alike, would, therefore, be undoubtedly preferable. But experiment has decided in favour of the sufficiency of nitrous acid fumes: and their advantage consists in their being generally little apt to provoke coughing, unless discharged in too dense a volume, and also in their being attended with but momentary inconvenience, and no danger, if this should happen.

### PRACTICAL INFERENCE.

The method of preventing febrile infection, follows of itself from the preceding discussion. To speak strictly, indeed, it reduces itself to a single rule. *Destroy contagion by acid fumigations.* The fumes of nitrous acid are raised by throwing nitre into warm oil of vitriol. Let a little sand be warmed to somewhat above the heat of boiling water, that is, to a degree considerably beyond what the hand can bear,

In this sand, let a gallipot, containing an ounce of oil of vitriol, be imbedded. Then let the bowl of a tea spoon of nitre be dropped into the oil of vitriol. Let the mixture be stirred with a glass rod; or a dry stick or the barrel of a quill, well besmeared with bees wax. No metallic substance must be used in any of these processes. White fumes will be seen to ascend; and they will be sensible through a small room. A second spoonful may be required for a larger room. The measure is to be regulated by the effect. Few private houses have rooms so large that four tea-spoonfuls (half an ounce) of nitre, used at once, will not fill with fumes, too dense to be agreeable, particularly where the lungs are delicate. To fumigate thoroughly (which should be done once or twice in 24 hours,) the doors and windows should be shut. But a perpetual slow extrication of fumes is also desirable, since the contagion is perpetually generated. During this, however, the air should be freely admitted. The apparatus should be placed so near the patient, that the fumes may be just perceptible where he lies. The least practice will teach the regulation of the fumes. By throwing open a window and door, they can be lessened at once, when too strong.

When about twice the quantity of nitre has

been added to the oil of vitriol, it will expel no more fumes ; and must therefore be changed.

Common salt may be used in the same way as nitre with oil of vitriol. But if the salt be well-dried first, no heated sand will be necessary in the beginning ; and afterwards it need not be so strongly heated.

It ought not to be concealed that the oxygenated muriatic acid, when too freely inspired, produces swooning, sneezing and a variety of disagreeable sensations. With the slightest discretion, however, it may be used for the prevention of infection ; and there is only one precaution necessary, which I have found it easy to impress upon persons, perfectly unaccustomed to chemistry. It has the convenience of not requiring artificial heat ; and I should undoubtedly prefer it to all known agents. Dr. ROLLO, in his excellent *account of the royal artillery hospital, at Woolwich*, directs, on the authority of Mr. CRUIKSHANK, as follows ; “ Take of pulverized manganese two  
“ parts—of common salt four parts—of oil of  
“ vitriol three parts—of water one part—  
“ When a patient is admitted with an infectious  
“ disease, or where there are patients with  
“ sores having offensive discharges, one or two  
“ gallypots are placed in the wards, with about  
“ three ounces of the manganese and salt, to

“ which is added half an ounce of water, and  
“ then is gradually poured on the whole, a part  
“ of the ounce of oil of vitriol ; the remainder  
“ occasionally. These quantities answer to  
“ the consumption of a day. A pot or two is  
“ also placed on the outside of the doors of the  
“ same wards, in the gallery. The vapour is  
“ diffused over the whole ward and penetrates  
“ every where, and destroys every other smell  
“ than what itself conveys.” M. MORVEAU  
gives the following proportions as preferable,  
though only on the score of œconomy : *common  
salt ten parts,—manganese two parts,—water  
four, and oil of vitriol, six parts.* If therefore  
we weigh out five drams of common salt, one  
of powdered manganese, and mix them in a  
mortar, and add two of water ; and from a  
bottle containing three drams of oil of vitriol,  
add about a sixth part, and so on through the  
day, this will be sufficient to destroy contagion,  
for so long, in a moderate sized apartment. The  
vessel containing the manganese, may be at first  
placed in a remote part of the room, till the  
attendants on the sick be familiarized with  
the fumes and the rate of their extrication.  
Between the times of adding oil of vitriol, the  
mixture may be stirred with glass or waxed  
wood, whenever the extrication of fumes  
appears too slack.



For those who are to handle the sick, particularly in cases of the scarlet fever, it may not be a superfluous care to wash the mouth and hands, and to wet the inside of the nostrils with vitriolic, nitrous or marine acids, sufficiently diluted to be agreeable. Where glazed dresses are used to protect the skin, the mucous membrane will be liable to the effluvia; these surfaces being probably much more susceptible of contagious impressions, than those which are covered by the cuticle.

Every thing that has been in contact with the patient, as foul linen, should be thrown into water slightly acidulated with one of these acids. And where it can be conveniently done, all the evacuations of the sick should be received into acidulated water. In short, the acids should be as freely used as possible in every circumstance, belonging to persons, affected with contagious febrile disorders.

With respect to other substances, which have been used at various times as anti-contagious, such as incense, camphor, the smoke of tobacco, whatever effect they may have in rendering smells less offensive, experience has amply shewn that they are destitute of power to destroy contagion. Of course, they could afford no security.

It may here too be noted as a dangerous error, that free use of port wine is a protection against infection during the reign of an epidemic. It is true that *habitual* drunkards have been sometimes said to escape the action of contagion, when it was fully exerted upon others. But occasional free use of wine so as to produce subsequent weakness, appears to increase susceptibility. In the fevers of our climate, the rule seems to be, that whatever enfeebles brings with it danger of infection. It has been remarked by the most experienced and intelligent observers that persons, slightly exposed to contagion, do not suffer, when afterwards exempt from debilitating causes, whereas otherwise they do. During convalescence, a relapse is occasioned by these causes. It is remarked by Dr. LIND, and the observation is strictly applicable to those that seek an excuse for indulgence in wine, that sailors after having committed such excess in drinking on shore as produced feverishness, did not return to their former health as usual, but that their feverishness put on the precise form of the contagious fever raging on board the ship. Dr. CHRIS-HOLM found that persons, most given to the abuse of intoxicating liquors, were most liable to the malignant pestilential fever at

Grenada. There need not therefore be any particular course of regimen during the rage of fevers, than what prudence enjoins at all seasons. Intemperance and abstemiousness are alike to be shunned.

Contact of the patient himself, inhaling an atmosphere, that retains full force to infect, and the use of apparel or furniture, on which the poisonous effluvia have settled, are the grand means, by which febrile diseases are propagated. Hence, besides the necessity of airing or fumigating articles, which have touched or been near the patient, arises the propriety of excluding all persons from the sick chamber, except the necessary attendants. Even under the security of the measures above described, this rule should be sacredly observed. For not only is exemption from dangerous diseases a case, in which one would "make assurance double sure;" but it is here in some measure as on board a ship in distress. Nothing can be so unfavourable to the regular performance of the offices required by the sick, as a promiscuous concourse, and the admixture of useless hands among those, who are occupied in their proper sphere. This restriction, however, is not to be construed to the exclusion

either of a friend, whose presence is thought likely to check the agitations of delirium or of occasional assistants, where additional strength is needed. It has already appeared how small is the danger of infection in the spacious apartments of the wealthy, without a neglect of ventilation, too gross to be conceived possible in the present day under the superintendence of any medical man, or indeed in a family, possessed of the most moderate degree of intelligence\*. Separation of the sick is what the condition of the poorer part of the community has long loudly called for. The call has been answered in a variety of places, for example, at Chester, Edinburgh, Manchester, Liverpool, Dublin, London, Cork, Newcastle, Waterford, Etruria. In these places wards in the infirmary have been set apart for the reception of patients, ill of fever; or distinct buildings have been

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\* In genteel houses I now frequently observe the contrary error, as people are apt to fly from one extreme into another. But it is a great deal more than unnecessary to invite the damps of November, through the wide-open windows, into apartments, too chilly at that season, though close shut up. It would be infinitely better to have recourse to the agent, by which pestilence has been heretofore vainly opposed: I need not say that fires should not be so fierce as those used to dissipate contagion; sufficient directions having been given, respecting the temperature of apartments.



erected or are now erecting\*. In Staffordshire, the working potters themselves have contributed from their wages towards the building and the current expences of the institution. It would be highly desirable that in other places labourers, that can afford a halfpenny a week, (which is the sum contributed by the potters,) should be, in the same manner, induced to take an interest in the design. One may also hope that the incontrovertible proofs of its utility and the example of these poor manufacturers will, at length, rouse the magistrates of all our towns to assist in stopping the pestilence,

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\* The caprice of fortune seems to me very striking in respect to those, who have laboured to prevent infection. Dr. J. C. SMYTH, deserves much commendation, doubtless, for prosecuting the acid fumigations. Yet the most obvious analogy pointed out the use of nitre in place of common salt; and the nitrous acid was indicated by M. MORVEAU, in his first paper. Dr. SMYTH, however, has been lucky enough to be thought worthy of a national recompence, amounting to half the value of that bestowed on the introducer of the cow-pock inoculation. On the other hand, no public notice has been taken of the persons, who carried into effect the scheme of preventing infection by separation. Yet who will deny that *they* had infinitely more call for exertion of mind, and an infinitely harder conflict with prejudice to sustain? Hitherto, I fancy, they have likewise saved five hundred times as many lives.

which has been and is raging around them on all sides.

The benefits attending *houses of recovery*, into which persons affected by fever are to be carried as soon as the attack is discovered, have been ably pointed out in so many publications, calculated for extra-professional circulation, that I shall but just touch upon the subject here.\* These structures accomplish two great objects. 1. *They save a number of the diseased that must otherwise perish.* During the prevalence of some epidemics, one in four of all the poor, affected with fever, have been stated to perish.† In London, to which the account refers, the accumulation of human beings sometimes seems almost to equal any thing on board slave-ships before the new regulations. From three to eight miserable creatures of different ages, occupy a single bed in a damp, dismal, close and filthy apartment. And it is remarked that “where two  
“or more persons are confined to one bed by  
“a fever at the same time, it almost invari-  
“ably happens that at least one of them  
“sinks under the disease.” (*Murray’s re-*

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\* See Dr. STANGER on *contagious fever in the metropolis*, and the various writers named by him.

† Dr. WILLAN’s reports on the diseases of London for March, 1800.

*marks on the poor of the metropolis.*) In habitations, a degree less wretched, every sort of want—the want of air—the want of all the conveniences that have been devised for the comfort of the sick—the want of regularity in administering any medicines that may be supplied—the want of address in relieving the incidental distresses of the sick, and above all, the want of hope, so common among the indigent in their best health and so constant under disease, must occasion a most disproportionate mortality. “I have known,” says Dr. FERRIAR, “nine patients in fever, crammed into three small dirty rooms, without the regular attendance of any friend or of a nurse. Four of these poor creatures died—absolutely from the want of the common offices of humanity and neglect in the administration of their medicines.” The author of this essay stated to the Mayor of Bristol on good authority that eight persons were last year buried out of one house in that city from fever. And yet to listen to vulgar opinion in the place, Bristol is a place peculiarly healthy.\*

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\* Those who disbelieve the accounts of last year from the Dispensary (thought dreadful even in London) and what I stated, may now convince themselves that *low fever can infest Bristol* by exploring St. Phillips'. Low fever exists in various other parts.

Such is the fate of the poor left to their own situation, and to their own care. In the house of recovery at Manchester, it results from the experience of years that a larger proportion recover than of private patients with all the accommodations that wealth can command. So decisive is the superiority of a well-combined system, regularly carried into effect! Such the chance in favour of the sick, when protected against the interference of gossips, who go about dispensing prejudice and death.

2. *The second and greatest benefit from houses of recovery is the prevention of infection.* The extent of this benefit may be, in part, appreciated from the preceding comparison between the dissemination of contagion in large and small, in airy and close apartments. But the progress of fevers among the poor is greater than can be imagined, without reference to the testimony of eye-witnesses on this head. When once introduced into the abodes of this class, fever travels with fatal certainty from individual to individual, from chamber to chamber, from floor to floor, till all is infected from the cellar below to the garret above. It not only reaches to every corps of inmates at one time, but for months together seizes the families that succeed those



that have been destroyed or disabled. Dr. FERRIAR was told by an elderly woman, that she had fifteen children, all settled in Manchester, and that all had undergone the fever within two months. The most thinly inhabited parts of the island have very little the advantage, in this respect, over the metropolis and over great manufacturing towns. In the country, a concourse of idly curious visitors nearly compensates for the moisture, darkness, and confinement of city cellars. Those, to whom the observation has not occurred, will find in a vast variety of the reports from the Scotch ministers, as published by Sir JOHN SINCLAIR, that the neighbours flock to a house, where the fever is, with as much eagerness as their superiors to a place of public amusement. So it is in country-places in England. In such places indeed they can, at present, only be admonished of the risk they themselves run, and of the mischief they do the sick. At most, the preservative of acid fumigation may be introduced by the better-informed residents. Though there is no reason why houses of recovery should not be introduced into every parish at all populous, or into an union of parishes, where the population is less. Indeed upon the evidence already accumulated\*, it

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\* It should be stated, that the opponents of Dr. CLARKE

may be asserted that the legislature could not do a more beneficent and æconomical act than to compel a general establishment of these asylums. In all epidemics, great terror, if nothing worse, is carried into the bosom of opulent families by servants who have caught the disorder among poor acquaintances; and when the contagion is rife among the washerwomen of a town, as it is very apt to be, the apparel that has passed through their hands becomes dangerous, and the poisoned shirt of NESSUS ceases to be a fable.

That, in the present state of society, houses of recovery afford the only sure means of arresting the progress of infection by affording an opportunity to purify the habitations of the poor, is too obvious to require an explanation. The fever is not only, in many cases, communicated to other members, before the uninformed patient or his friends have any suspicion of its nature; but the apparel, the bed-clothes, the walls, and various articles of

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at Newcastle coincided with him as to the utility of a house of recovery. They are now, I am informed, zealously labouring to raise funds for the erection of one. They objected to the situation near the infirmary, where almost all medical men think it would do much the most good. And the sum necessary for a new structure would have been saved; and what services might this sum not have rendered to Newcastle and the environs, in the hands of a board of health?

the scanty household, have received the contamination. Here is a stock of contagion, ready to continue the distemper for an indefinite time without interruption, or to give rise to it at some future period, as accident shall dispose.

The importance of removing the first person in a family, affected by fever, and of purifying the habitation and its contents, (a care that certainly cannot be confided to the poor themselves,) has suggested the idea of medical associations, whose office it is to superintend these objects, and whatever else relates to the prevention of infection. The success which has attended the endeavours of that established in Manchester, has left no doubt with intelligent judges, of the possibility of the total extinction of contagion, and of the very easy practicability of reducing its ravages within a narrow compass.

### *SCARLET FEVER, with Sore Throat.*

Whatever may be the comparative exemption of the opulent from low or typhus fever, there is another species of contagion which they have much cause to dread. It is that which in its virulent form produces the most suddenly fatal of all our infectious disorders. It sometimes destroys in two or three days after the breaking

out of the symptoms. I was once desired on a Saturday, to see a little boy affected with this complaint, and found him dying. Passing the same way on the next Monday evening, I called to enquire after the mother, and was told that a girl, whom I had seen on the first visit apparently in good health, had been seized and died in the interval. I have known other cases, almost as quickly fatal; and every physician, who has had much experience of scarlet fever, must have met with analogous examples. Another important fact, relative to this dangerous disorder, is that it is excessively infectious, and I believe that most medical practitioners would be ready to attest of the scarlatina exactly the contrary of what has been stated above, concerning typhus. If in spacious and airy apartments, the one is seldom known to be communicated, the other scarce ever fails to spread. The following are the ideas of Dr. CLARKE, on the best means of proceeding for putting an end to the depredations of scarlet fever. The reflections of so judicious and experienced an observer of diseases, cannot be too widely disseminated.

He supposes a board of health established. This board, he proceeds, “should not limit its efforts to the extermination of typhus contagion, but also extend them to the preven-



“ tion of the casual small-pox, and of the  
“ scarlet fever, attended with sore throat.—  
“ - - - - - By extending the rules of pre-  
“ vention to the scarlet fever, and consequently  
“ checking its progress, the lives of the chil-  
“ dren of the middle and higher orders of  
“ society, in large towns and in their vicinity,  
“ will be preserved ; who, at present, suffer  
“ ten times more from this, than from any  
“ typhus contagion.\*

“ The small additional expence of carrying  
“ rules of prevention for the small-pox and  
“ scarlet fever into execution, will scarce merit  
“ the consideration of any board of health.  
“ But a house of reception for poor patients,  
“ labouring under scarlet fever, though ex-  
“ pensive, would be attended with the great  
“ advantage of securing cities and populous

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\* Dr. CLARKE was undoubtedly careful of exaggerating. Otherwise he might have stated a much higher proportion. In this part of England, at least, I suspect that from thirty to fifty times as many members of opulent families are affected by scarlatina, as by typhus : and adults as well as children.— One morning, some years ago, on setting out on a distant journey, I met Mr. K. a member of the Irish parliament, who shewed me in his hand, with great glee, the report of the Irish house of lords on the united Irish, and appeared perfectly well. The first news I heard on my return, was that he was dead of scarlet fever, and that it was spreading. Persons, then residing at Clifton, will remember the incident;

“ towns from the destructive ravages of this  
“ disease. Such a separate house for this com-  
“ plaint, therefore, as soon the funds of esta-  
“ blished boards of health will permit, should  
“ be annexed to fever wards ; taking care, at  
“ the same time, to guard against the intermix-  
“ ture of the respective patients, of clothes  
“ and of servants.

“ But it will be proper, in this place, to  
“ observe, that no single house for the recep-  
“ tion of scarlet fever, will be found adequate  
“ for the compleat prevention of this disease ;  
“ because the subjects of it are generallly  
“ young children, nay, often infants at the  
“ breast. To prevent this disease, therefore,  
“ from spreading, it will be in general, neces-  
“ sary to remove the whole family, which  
“ would soon fill one house of reception. A  
“ range of neat small houses, containing rooms  
“ with opposite windows, for the reception of  
“ poor families in suceession, sending the  
“ families back to their own purified habita-  
“ tions, as soon as the distemper is over.

“ Rooms of this kind for the reception of  
“ whole families, employed at the breaking  
“ out of the scarlet fever, together with the  
“ house already mentioned to be annexed to  
“ fever wards, for the admission of the *first*  
“ patient seized in a poor habitation, would

“effectually extinguish the disease; and it  
“would be the interest of parishes to build,\*  
“and keep in readiness, such a range of  
“houses.” (*Supplement to collection of papers*,  
ps. 142—144.)

The greater the danger and fatality from the contagion of scarlet fever, with the more assiduity should fumigations, the other great preservative, be employed. That it will, in this case, be effectual, has not been demon-

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\* That parishes would find it their *pecuniary* interest to raise buildings for the recovery of their sick poor, may sound to some like a projector's paradox. And, in fact, if the scheme required a considerable uncompensated expence in addition to the burdens imposed by the poor-laws and the exhausting demands of government, the objection would be very formidable. But the parochial savings would soon much more than pay the interest of the capital, expended in building. Grown people suffer from low fever in greater proportion than children, and more men die than women. In the great epidemic at and near Lancaster, Dr. CAMPBELL observed that of men 1 died in 8; of women 1 in 19; of children 1 in 80. The death of the father therefore, which is always the more probable event, throws the family upon the parish. What a noble example, if a company of rich men, upon having secured to them the average annual charges from low fevers and their consequences, would undertake to establish houses of recovery! To demonstrate that these charges would more than pay the interest of the money expended in the building and the current cost of the establishment, would be to secure their erection every where!

strated by experiments on so large a scale, and so frequently repeated. But during the prevalence of febrile diseases of late years, among which the scarlatina has often made its appearance, I have known the oxygenated muriatic acid used; with this proof of its favour, that the infection has not spread under the circumstances in which it usually does without this precaution. Some experienced physicians have believed that scarlatina anginosa and malignant sore throat are varieties of the same disease. It is certain that the nature of the general affection is similar to that in low fever, if this be any indication of a similarity in the nature of the exciting cause.—And as the alterative power of the acid vapours has been found by precise experiments to extend to small-pox as well as typhus, we may, I think, rely upon it, that it will not fail us in either of the two former complaints.

It will, doubtless, be a part of the business of medical boards, as well as private practitioners, to determine the power of this cheap and simple method of destroying contagion not only in febrile contagious disorders, but in others not essentially so, as chin-cough. When society shall have acquired thorough confidence in their agency and perfect familiarity with their use, they



must, of necessity, supersede houses of recovery. But the capital, that may have been laid out upon these edifices will not have been wasted; as they will be easily convertible to other public or to private purposes. Their general introduction will be attended with this other inestimable advantage, that it will create a spirit of vigilance to the earliest tokens of the operation of contagion, and dispose families, who have no occasion to send their sick members abroad for a cure or for the sake of stopping the dissemination of disease, to follow all the approved directions with stricter punctuality.

One very happy effect upon the general conduct of the poor at Manchester has been observed from the interposition of the board of health. By the purification of houses, out of which fever-patients have been removed, a disposition to cleanliness has been introduced. The inhabitants doubtless feeling more chearful and comfortable in their white-washed and sweetened apartments, exerted themselves to prevent a relapse into their former foul and dismal condition. So far we have a security against the future production of contagion; and those among the poor, who acquire a taste for cleanliness, will not be long before they acquire regular and sober habits.

*Extension of the Plan for preventing Infection.*

It is held by many that *efforts in the cause of truth are never lost*; and it must be owned that what has been done with a view to oppose the propagation of contagion tends powerfully to corroborate this opinion. Twenty years have not yet elapsed since fever-wards were first set apart in England for this purpose; and the plan of fever-houses has spread from the provinces to the metropolis, from which advantageous station they promise to extend in all directions. Wherever the question of their utility has been agitated, there the discussion has terminated compleatly in their favour, and been followed up by practical measures.

Without question, if the spirit that has been thus excited, and that seems to me to involve more of wisdom and humanity, than have ever before been combined by men acting in concert, shall receive a proper direction, its good effects will not stop at febrile infectious diseases. Other acute diseases may become objects of the attention of boards of health, and in certain cases, those who suffer from them should be equally removed from infected houses. Otherwise not only will one main intention of the establishment be de-

feated; but the most valuable lives in a family be lost, while the least so are preserved. The greatest prevalence of low fever frequently occurs, when catarrhs, pleurisy, and rheumatism are most common. Though contagion be in his house, (whether of generation previous to disease or issuing from the infected), the healthy labourer shall resist: but no sooner is he debilitated by one of these other complaints than the same cause, which he before withstood, shall make a fatal impression.\* Of course, the patient must be removed to a healthy atmosphere, or the contagion by which he is encompassed must be destroyed.

But experience will soon suggest this and other smaller improvements. It is of more consequence to extend the views of the sup-

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\* Persons residing in infected apartments, sometimes by means of fresh air and the exercise of the day, continue long unaffected by contagion. But if through taking cold or any other cause, they should be confined to the house for some days, they assuredly take the fever. So it happened in the late unfavourable season. Whoever was obliged to keep his bed for a catarrh, pleurisy or inflammation of the lungs, within three or four days caught the fever; and almost every one so affected, died. The children are infected from the new source of contagion; and the mother, after closing the eyes of her husband, and perhaps of more than one of her offspring, sinks exhausted with grief, watching and fatigue, and is herself the last victim to the disease. (*Willan's reports.*)

porters of these institutions to the prevention of chronic diseases also, by which such a portion of mortality and misery are occasioned among the poor, as there must be an universal wish to see diminished. The expence and trouble, necessary to this, will make a very inconsiderable addition to the expence and trouble, inseparable from the management of a house of recovery, though the two designs may be carried on apart. The convenience of their combination will consist in this. To a house of recovery, a medical officer will be necessary, whose business it shall be to examine at their own habitations such patients as are proposed for admission, and likewise after the removal of the patients, to superintend the execution of the measures necessary for checking the progress of contagion, and preventing the renewal of its effects; such as fumigations, cleansing and white-washing the apartments; fumigating the apparel and bed clothes, and securing their destruction, if this, now we have the knowledge of the power of the acids, shall be ever necessary. Wherever this officer is called, he may at the same visit ascertain the state of the family as to chronic ailments. They are often apparent at a glance.

I shall not attempt a delineation of the wretchedness, arising among the poor from



the frequency of disorders of this class. By their designation they are permanent, often lingering for years; and it is probable that they produce upon the whole a sum of pain, even more considerable, than acute diseases.— The bills of mortality attest to what a degree they are destructive. Their prevalence is beyond the conception of persons, not accustomed to the actual inspection of the poor with medical views. I do not think it too high to estimate that of *every five labourers' families where there are both parents and children, in three out of the five more than one individual will be found to suffer from some lingering malady*, DRYDEN says of his “somewhat old and very poor” widow—

Her poverty was glad; her heart content,  
Nor knew she what the spleen or vapours meant.

But of such poverty, certain great statesmen, with whom we have been blest since DRYDEN's time, have nearly rid the land. I remember to have seen some remains of it in my youth. I meet with it no longer. From a good deal of observation and enquiry in different districts, I incline to think that a poor family of any size, where father, mother, son or daughter are not sorely harassed or dangerously affected with one or other of the following chronic disorders, is among the rarities of society;

*Hysteria or the like.*

*Indigestion.*

*Chlorosis or some female complaint*

*Rheumatism.*

*Consumption incipient or confirmed.*

*Scrophula in its various shapes.*

Now, except in far advanced consumption or schrophula, simple treatment is found almost invariably efficacious, notwithstanding the disadvantages under which the poor labour, particularly in the article of diet. How desirable then that these complaints should be detected in their nascent state, in which they are, for the most part, exceedingly obvious to an experienced eye ! The principal thing necessary, therefore, is to provide for a regular domestic survey of the poor, or to fix upon some place, where parents might attend with their children at stated times. To this I am persuaded that many of them may easily be induced, for the dire distress, under which they have, of late, been labouring, seems to have had the effect of rendering them more tractable—just as a deep snow tames the birds of the air. A little conversation would, I believe, induce many to make a better disposal of their earnings in the purchase of articles of food. Tea, for example, they unanimously declare to be their only

remaining comfort. They drink it twice or thrice a day. Now "the popular use of this herb not only precludes the possibility of purchasing more solid food, but actually renders the stomach incapable of digesting a more nutritious diet." (*Dr. Barry's report relative to the Cork house of recovery*). And, on these grounds, unless they practice the grossest deception, I have often succeeded in persuading them to lay it aside.

The expence of a regular system of inspection and of remedies for chronic disorders, taken when they are so distinct as to be perfectly cognizable, but before they have taken root, would be a most trifling object. From having paid the bills for drugs for a considerable number of poor chronic patients in and about Bristol, I should estimate that four hundred guineas annually would be fully enough to do the same for all such patients in the city, and for all too, that could attend at any place in it from the environs.

How advantageous to the rich would be the establishment of such a plan, in rendering the medical practitioner more familiar with the early appearance and treatment of the very complaints, to which *they* and their children are particularly subject!

*ENLARGEMENT and ORGANIZATION  
of the preceding PLAN.*

Whoever is capable of taking a comprehensive view of the great and precious, but neglected, art of PREVENTIVE MEDICINE, would desire still to reduce into order and to convert to use, many things, of which society, at présent, profits or otherwise, according as chance disposes the will or abilities of individuals. It is not enough to form medical associations for the prevention of febrile infection, and for the suppression of chronic disorders on their first formation, in particular. There is wanting a general co-operation both for these and other objects. Nor do I see in what respect the title of medicine to a national establishment, is inferior to that of agriculture. The public health appears to have as fair claims to regard, as the public sustenance. The outlines of an effectual system for the ascertainment of the state of the public health, and for its preservation, will readily occur to every person, acquainted with the established forms for conducting the great affairs of mankind. Particular regulations will present themselves as soon as the execution of the scheme shall be set about in earnest.

In the first place, it is obvious that a board must be established in the metropolis, and that there must be other boards in cities, towns and country districts, with which the first is regularly to communicate. The conduct of the business must be entrusted to select individuals, but admission to the place of meeting should be free, at stated times, to members of the medical profession



without exception ; and all should be invited to give information in writing, when they could not attend. A digest of the whole ought to be annually published. Should a particular emergency demand an extraordinary report, the materials would be at hand. By such an arrangement, the execution, the success, and the comparative merit of the different means of suppressing contagion and chronic disorders would come before the public ; and undeniable improvements would pass with expedition from place to place. At present, the rate at which they travel, is woefully slow, and thousands perish in the mean time. For if the plan for a *fever-house* hardly reached Liverpool from Manchester in six years, how long will it be in getting to Bristol, whither the roads for useful public designs have, in all ages, been said to be heavy ?

It should be among the principal cares of a national system of medical boards, to extract, from charitable institutions for the relief of the indigent sick, a quantity of medical knowledge, and by consequence, of public benefit, which hitherto they have never yielded.

By the same means, too, I conceive that the various resources, existing out of the profession and at present yielding nothing, would be called into effect. In order to illustrate this observation, I extract a passage from a paper, formerly inserted in a work of more limited circulation than the present essays. (*West-country contributions*, 1799.)

“ The medical functionaries of hospitals should be required at fixed, perhaps monthly periods, to furnish an account of their respective

departments, particularly noticing such phenomena, as should appear to them instructive or singular. To these meetings all the practitioners of the place and neighbourhood, together with the subscribers to the charity, should have free access. When the statement contained any thing uncommonly interesting, a commissioner or committee of verification, should be appointed to examine the circumstances. In cases, not admitting of delay, the attending physician or surgeon should call in one or more commissioners in the intervals of the sitting." - -

" After considering the stake which society has in medicine, how often in a man's life it may, according to its power and administration, wound or soothe his personal feelings and his sympathies, let him imagine himself present at one of these sittings, where the business is carried on with a spirit adequate to its importance. What motives for self congratulation and for congratulating his whole species, will the scene before him offer ! The art of most immediate and most universal concern drawn out of its present darkness, in which none can distinguish whom it preserves and whom it destroys ! its doubts solved ! its contradictions reconciled ! the cause of phenomena, where cause and existence are at issue, detected ! light and order suddenly spread through trains of ideas that had long been vainly struggling in the mind of the ingenious ! the stores of the most abounding in knowledge augmented ! the faculties of the most acute sharpened ! the interest of all classes promoted ! the fortunate son of Esculapius, retiring with better informed judgment to the mansions of the opulent ! the

humbler practitioner carrying away comfort to the peasant and the pauper !”

“ Europe abounds in private medical societies. It abounds in philosophical societies, pursuing with success every species of knowledge, but that most worthy the curiosity of the philosopher, the knowledge of man. These are the disjoined elements of the association here suggested.” - - - -

“ As medical philosophy gains more of the public attention, medical practitioners will become more and more the devoted servants of their art. Such as is the community, such will ever be medicine. The more intelligence in the first, the less intrigue, the less quackery, the less helplessness in the last. - - - - It is often the consciousness of the part mankind take in their exertions that stimulates the soldier in the field and the orator in the council. Under the same powerful motive the physician would also perform wonders.” - - - - -

“ I shall perhaps be told that our hospitals are already on the best footing and in the ablest hands, and that every thing useful to the present age and to posterity, will be recorded: consequently that no good can arise from the cumbersome regulations I propose. But I, who can name a variety of hospitals, which in a long course of years have furnished nothing or next to nothing to medical philosophy, must be slow to believe in this universal vigilance. To many of our predecessors and to many of our contemporaries, the healing art is deeply indebted for what they have recorded of their hospital practice. Nor would I desire a more conclusive argument.



For if a part is so valuable, what would the whole be? And what, according to a just estimation, are the facts that have been preserved, but fragments of a mighty wreck, demonstrating the value of the mass that has perished."

To lose one useful fact, may be to lose many lives. And does not ten thousand times more valuable information perish than is preserved? and all for want of a combination among the theatres of disease, and of a great commanding station, a national bank of medical wealth, where the private practitioner may deposit his gains of knowledge, and draw out, in return, the whole stock, accumulated by his contemporaries? In the late controversy, it was publickly declared on high authority that the infirmary at Newcastle was in a state of disorganization; and I wonder how many of our infirmaries are in the best possible state of organization. It is too obvious to require proof that the plan which brings forth, for the use of the public, all the instruction these institutions can supply, must secure to their inhabitants, the best treatment in every sense of the word—particularly if the present paralysing system of permanency in the medical functionaries be abolished, and a rotation, at due intervals, introduced in its stead.\*

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\* The plan of the *cancer-institution*, proposes "that a physician and surgeon be elected, not for life, but for three, five, or seven years." It is to be hoped that in an enlightened age, no new medical establishment will tolerate the plan of perpetuity. Objections have been drawn from the abuse of the rotation-scheme, against the thing itself. The objectors have not appeared to comprehend that there is a medium between a stagnant pond and a torrent.



But *the expence ! the danger of a job !*—the expence ! what expence ? the expence of a few thousand pounds a year for the greatest benefit that can be conferred on a people, from whom so many millions are drawn ! It has been frequently said that this and that destructive disorder might be extirpated if a co-operation between governments could be attained. But of co-operation to so beneficent a purpose, there was no hope. Let the reader determine if this were a libel on governments. But whatever indifference statesmen may have towards doing good for its own sake, one would suppose that they would not be disinclined to procure for the people, at the people's own expence, a blessing, which being continually felt, and requiring no hour-long harangues to prove it such, would ensure the public gratitude to the authors—a thing particularly desirable at present, when society has been rocking like a vessel in a storm to the imminent hazard of the pilot.

But the other rub—*the job !* Against that, provision must be made by the nature of the regulations. Let there be none but moderate salaries, for hard-working clerks. The rest ought to be done from affection for the art. Those men are not worthy to be entrusted with the health of others, who will not *give* so much pains for the chance of learning how better to execute their trust. Nor can it be doubted that men, who will, can be found. During the late war, how many army physicians, in addition to their exhausting official duties, have preferred the labour of minuting down the occurrences among their sick, to that sleep, for which nature so loudly cried !—The spirit of our profession is little

of a sinecure spirit. And, for the sake of the health and happiness of my brethren, I hope we shall long be content to relinquish this spirit to our betters.

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With these suggestions I take my leave of an engagement, which nothing but the perpetual spectacle of the fatal effects, arising from domestic errors in every part of the country, and the hope of paving the way for more salutary practices could have induced me to undertake. From my previous professional avocations, I had no right to calculate upon the frequent and continued interruptions to which I have actually been subject. From circumstances, many of which I could not controul, the author and the printer set to work nearly at the same instant. Hence the month, previous to the publication of each number, was the utmost space allotted for preparing it; and from this, in almost every instance, distant journeys have subtracted a fourth. Such is the cause of much want of arrangement, of frequent obscurities, and many inelegancies. I know not if it will serve as their excuse. To my own palate, I confess, even, in the passages I least disapprove—

*Inest amari aliquid, quod ipsis in floribus angit.*

I will not, however, conceal that I often purposely deviate from a style, which I consider as suited only to the squeamish taste of an enervated age. Should improving science, as I hope, and in particular the

science of human nature, restore to us the blessing of intellectual health, the niceties of those compositions, over which the artist and the amateur hang till they both sicken, may come to be referred to one class with the quaintnesses of the literary age that preceded SWIFT and ADDISON. Even in the periods of ROBERTSON and GIBBON, there may, hereafter, be discovered exactly the kind of fault that disgusted the poet in TIMON's villa—

Grove nods at grove, each alley has a brother,  
And half the platform just reflects the other.

Wherever I could find or recollect ideas suitable to my purpose, I have freely seized them by a right, I believe, universally acknowledged to reside in the authors of elementary treatises. For I too had to deliver the elements of the most important of arts, namely, *that of living*. In such an arena, it would have been the idlest of all vanities to attempt a display of the talent of originality. Indeed, where they equally suited my purpose, I preferred facts from the experience of others, as supposing they would carry with them superior authority.—Many of our literary connoisseurs have imbibed a strong dislike of the productions of the German press; and our vile translations of vile originals, must inevitably create this feeling. Indeed, in the *belles lettres* very few of their authors will please readers familiar with those of ancient Greece and Rome, and with the best of modern Italy, France, and England. But their compilations are convenient, and their

collections of original facts beginning to be really valuable to those, who will be at the pains to sift them. No other nation is equally attentive to accumulate medical materials. Nor, with the exception of a REIL and one or two other individuals, does any nation turn them to so little account. I know not whether I shall be found to have refined any of their ore, or to have transmuted German lead into a nobler metal. —In medical manuals for families their language abounds as it does in all other sorts of manuals. I should be glad, however, if any body would point me out one, in which the materials are wrought up in a manner, really fit for the service of families in this or indeed in any country. My search has been pretty extensive but vain. Yet this is the chief, or rather the only merit of such performances.

I ought, indeed, to except one point, and that among the most important, and certainly, beyond comparison, the most delicate of all. The reader will be at no loss to guess what point I mean. Here I found precious instruction both in respect to facts and their application, together with an encouraging coincidence in sentiment. I did not find these helps in the writings of physicians, but of persons long devoted to education on the amplest scale, and with an assiduity, which forsakes not the pupil at the school-door, or as soon as the cloth is drawn, but pursues him in his recreations and to his repose, ascertains his solitary habits, and refuses to leave even his inmost sentiments undetected.

What I have written upon this point has brought me so much fresh information, as



would of itself nearly suffice for the foundation of a tract. Every case has served to confirm the doctrine I had laid down. The history of patients, by whom I have been lately consulted, shews that there is nearly as much danger to the uninstructed in the spontaneous movements of nature or in the evolution of the organs, as in evil communications. It is a matter, that no one, who would do his best to secure health to his children, can slur over. Let them be assured it will not pass like a *subauditur* in grammar. Four times out of five, ignorance, I verily believe, will be destruction to alertness of body and to cheerfulness of mind in the after-part of life. Every one who takes up the pen in behalf of young people, and neglects the regulation of this predominating principle in our nature, commits an oversight more than half as gross as that of the astronomer, who should leave the attractive influence of the sun out of his system.

Were disclosure permitted to the physician, some anecdotes I could relate would be deemed equally curious and decisive. The following fact, in some of the instances where it has occurred, is known to several individuals. The children of parents, who had adopted ideas exactly opposite to mine, and from whom it was in order that I should experience a foretaste of the abuse for which I am prepared—children, I say, of these very parents have been reclaimed, by the perusal of the fourth essay, from that injurious habit, into which they had fallen for want of previous instruction.

For the rest I make my appeal to experience. Let the heads of families declare whether I

have made sufficiently plain to them what disposition it behoves them to assume, and what measures I think they ought to pursue for securing their children against the common dangers of life. Let those who have found their offspring suffer or perish in infancy, or (what is very common) after a seeming healthy childhood, fall off more and more as they advance towards puberty, exchange their plan for that recommended in this work. Let them then speak the consequences. But I protest against garbling. Let no one, who compounds with my principles, hold me responsible for the result. The same appeal I make to the dyspeptic, the nervous, and to all the valetudinarians, on whose sufferings I have touched. I desire to abide by this result. If my instructions answer on trial, I want no other encomium, and shall feel indifferent to censure on any other score.

There yet remain many subjects in preventive medicine, and some of them I may hereafter treat in a separate volume. With my present views and occupations, the continuance of these numbers would be irksome, if not impracticable.—Those who have had the same sort of experience may imagine how I feel as the chain drops away, with which I have been fastened to the oar of a monthly publication. But I find myself far from spent with the toil, and I can say with as good heart as many who have lain by, all the time, in the shade—

To-morrow to flesh woods and pastures new.

FINIS.

